

CHAPTER 4

**RIGGING M102 HOWITZER WITH 1 1/4-TON HMMWV TRUCK AND
ACCOMPANYING AMMUNITION**

Section I

**RIGGING HOWITZER AND TRUCK FOR
LOW-VELOCITY
AIRDROP ON TYPE V PLATFORM****4-1. Description of Load**

The M102, 105-millimeter howitzer is rigged with the 1 1/4-ton HMMWV truck as its prime mover and an accompanying load of gun equipment and ammunition on a 32-foot, type V airdrop platform. A load weighing 800 to 2,000 pounds must be rigged in the truck. The gun equipment and 8 boxes of ammunition are shown. Twenty-two boxes of ammunition are rigged on the platform. This load requires four G-11B cargo parachutes.

4-2. Preparing Platform

Prepare a 32-foot, type V airdrop platform as described below.

a. Inspecting Platform. Inspect, or assemble and inspect, the platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.

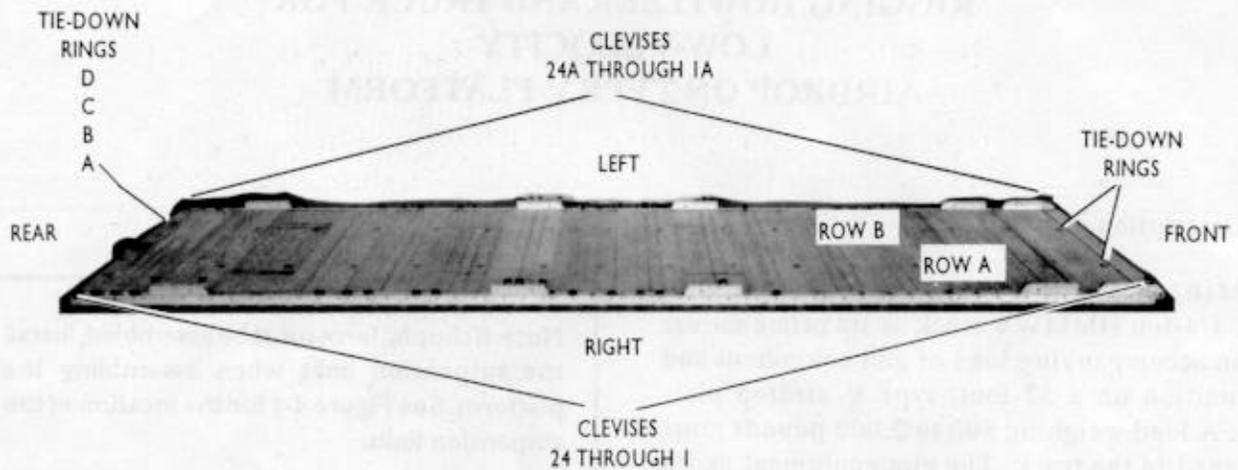
Note: If the platform must be assembled, install the suspension links when assembling the platform. See Figure 4-1 for the location of the suspension links.

b. Installing Suspension Links. Install the suspension links on assembled platforms according to FM 10-500-2/TO 13C7-1-5.

c. Installing Tandem Links. Install a tandem link on the front of each rail as shown in Figure 4-1.

d. Installing and Numbering Clevises. Bolt and number 48 clevis assemblies as shown in Figure 4-1.

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



Step:

1. Install a suspension link in holes 26, 27, and 28 on each platform side rail. Face the flat part of the link to the front of the rail.
2. Install a suspension link in holes 6, 7, and 8 on each platform side rail. Face the flat part of the link to the front of the rail.
3. Install a suspension link in holes 37, 38, and 39 on each platform side rail. Face the flat part of the link to the rear of the rail.
4. Install a suspension link in holes 57, 58, and 59 on each platform side rail. Face the flat part of the link to the rear of the rail.

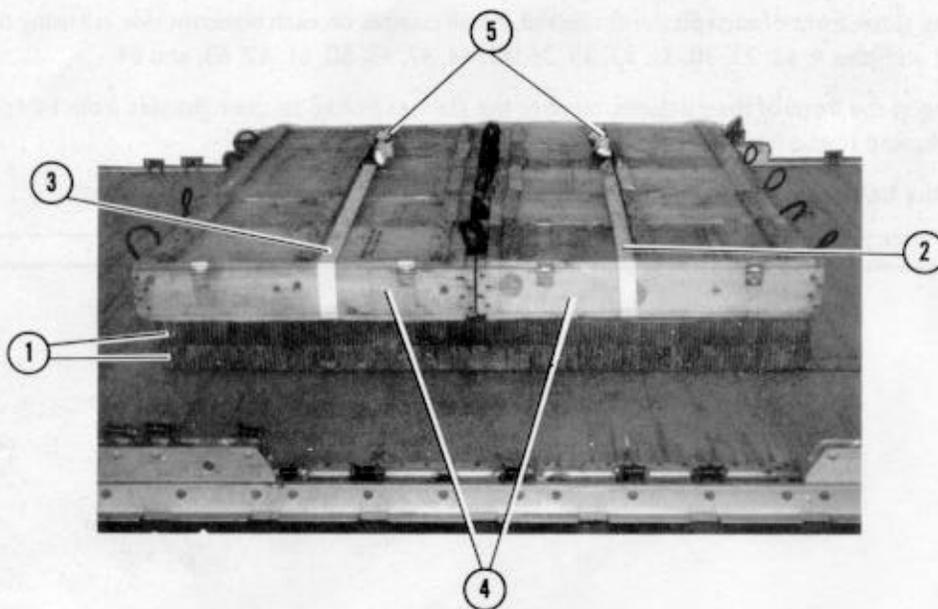
Figure 4-1. Platform prepared

5. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
6. Install a clevis on bushing 1 on each front tandem link.
7. Install a clevis on bushing 2 on the second suspension link on each side.
8. Install clevises on bushings 1, 2, and 3 on the third suspension link on each side.
9. Install clevises on bushings 1 and 4 on the fourth suspension link on each side.
10. Starting at the front of each platform side rail, install clevises on each platform side rail using the bushings bolted on holes 4, 13, 23, 30, 31, 33, 35, 36, 43, 44, 47, 48, 50, 61, 62, 63, and 64.
11. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 24 and those bolted to the left side from 1A through 24A.
12. Label the tie-down rings according to FM 10-500-2/TO 13C7-1-5.

Figure 4-1. Platform prepared (continued)

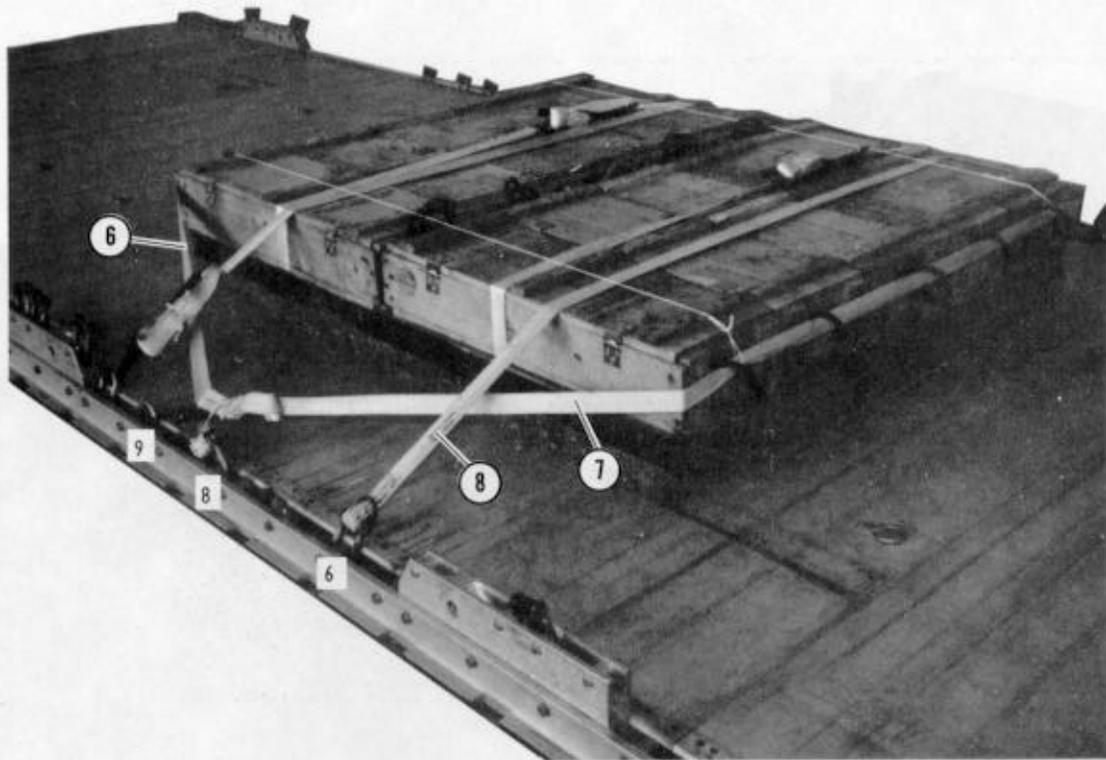
4-3. Stowing Accompanying Load on Platform

Stow 22 boxes of 105-millimeter ammunition weighing 2,640 pounds on the platform as shown in Figures 4-2, 4-3, and 4-4.



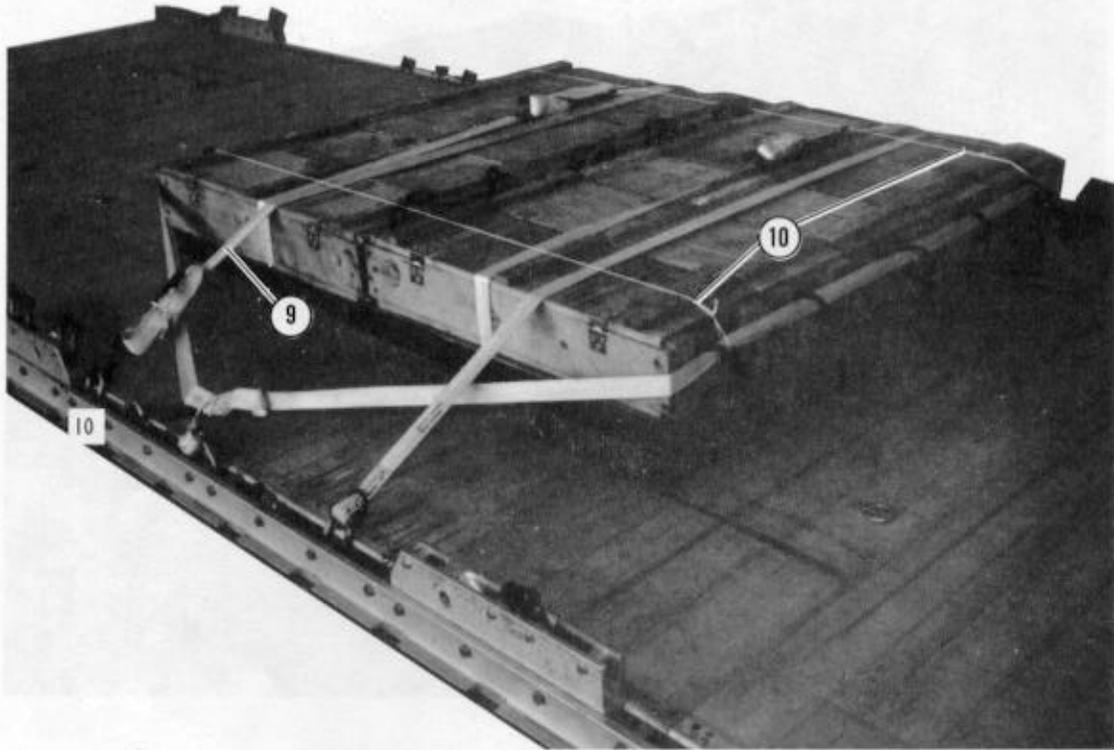
- ① Alternate two 36-by 72-inch and two 24-by 72-inch pieces of honeycomb to make two layers 60 inches wide and 72 inches long. Position this stack 129 inches from the front edge of the platform.
- ② Center a 15-foot lashing 18 inches from the front edge of the stack.
- ③ Center a 15-foot lashing 52 inches from the front edge of the stack.
- ④ Place 10 boxes of ammunition on the honeycomb.
- ⑤ Secure the lashings placed in steps 2 and 3 above over the boxes with D-rings and load binders.

Figure 4-2. Ten boxes of ammunition stowed on the middle of the platform



- ⑥ Pass the free end of a 15-foot lashing through clevis 8 and through its own D-ring. Pull the lashing taut, and run it through the rear handles of the boxes. Fit a D-ring to the end of the lashing and secure it to clevis 8A with a load binder.
- ⑦ Pass the free end of a 15-foot lashing through clevis 9A and through its own D-ring. Pull the lashing taut, and run it through the front handles of the boxes. Fit a D-ring to the end of the lashing and secure it to clevis 9 with a load binder.
- ⑧ Pass the free end of a 15-foot lashing through clevis 6 and through its own D-ring. Pull the lashing taut, and run it over the top of the boxes. Fit a D-ring to the end of the lashing and secure it to clevis 6A with a load binder.

Figure 4-2. Ten boxes of ammunition stowed on the middle of the platform (continued)

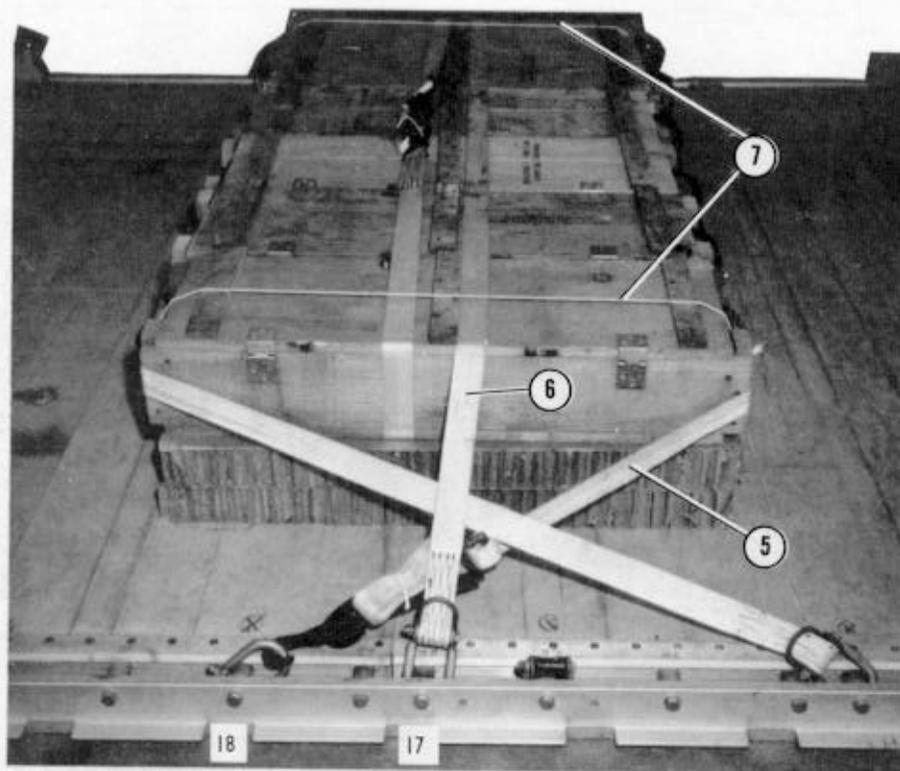


- ⑨ Pass the free end of a 15-foot lashing through clevis 10A and through its own D-ring. Pull the lashing taut, and run it over the top of the boxes. Fit a D-ring to the end of the lashing and secure it to clevis 10 with a load binder.

Note: Invert all clevises to which load binders are attached.

- ⑩ Tie two lengths of type III nylon cord between the lashings on the ends of the boxes to keep the lashings in place.

Figure 4-2. Ten boxes of ammunition stowed on the middle of the platform (continued)



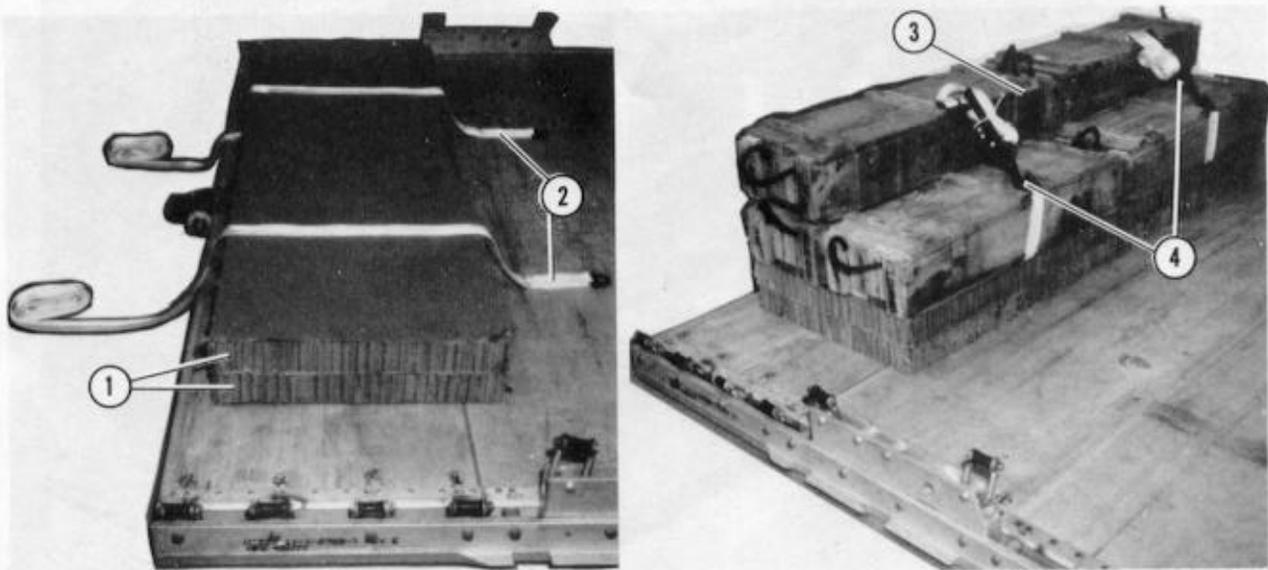
⑤ Pass the free end of a 15-foot lashing through clevis 18A and through its own D-ring. Pull the lashing taut, and run it through the front handles of the boxes. Fit a D-ring to the end of the lashing and secure it to clevis 18 with a load binder.

⑥ Pass the free end of a 15-foot lashing through clevis 17 and through its own D-ring. Pull the lashing taut, and run it over the top of the boxes. Fit a D-ring to the end of the lashing and secure it to clevis 17A with a load binder.

Note: Invert all clevises to which load binders are attached.

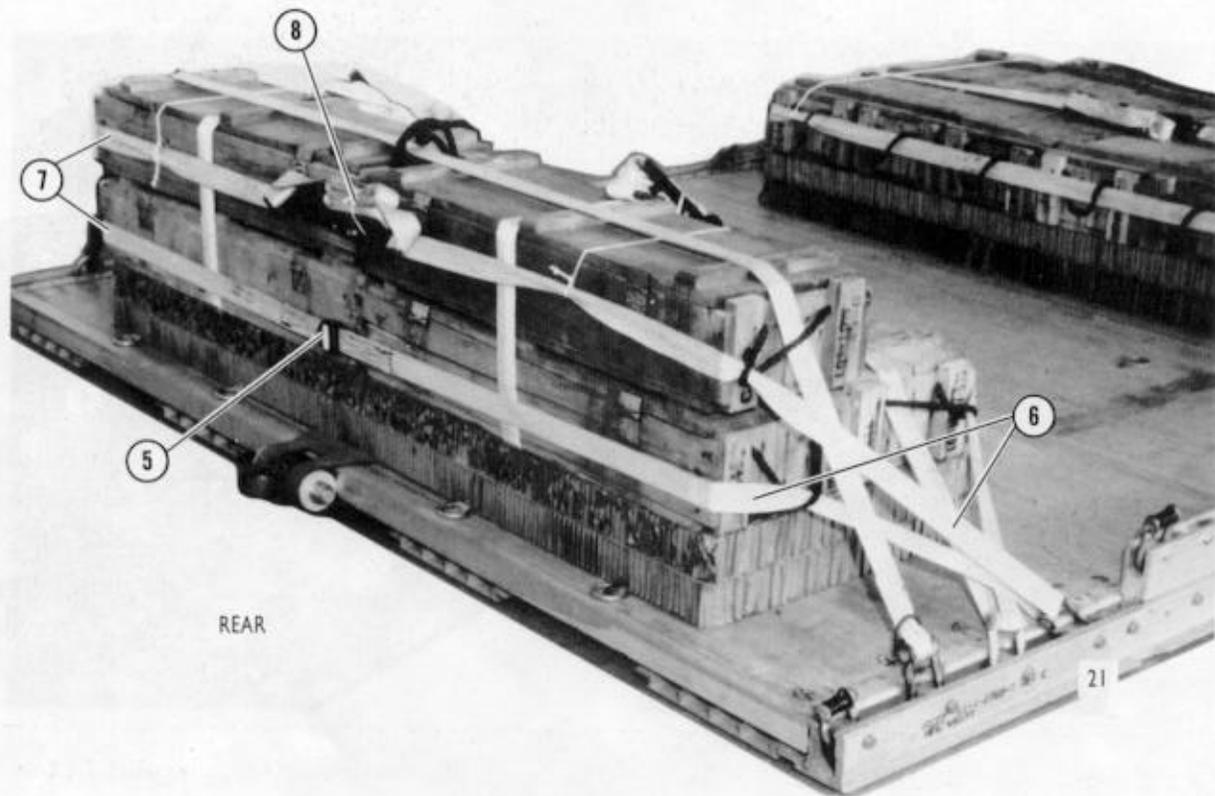
⑦ Tie two lengths of type III nylon cord between the lashings on the ends of the boxes to keep the lashings in place.

Figure 4-3. Six boxes of ammunition stowed in the howitzer position (continued)



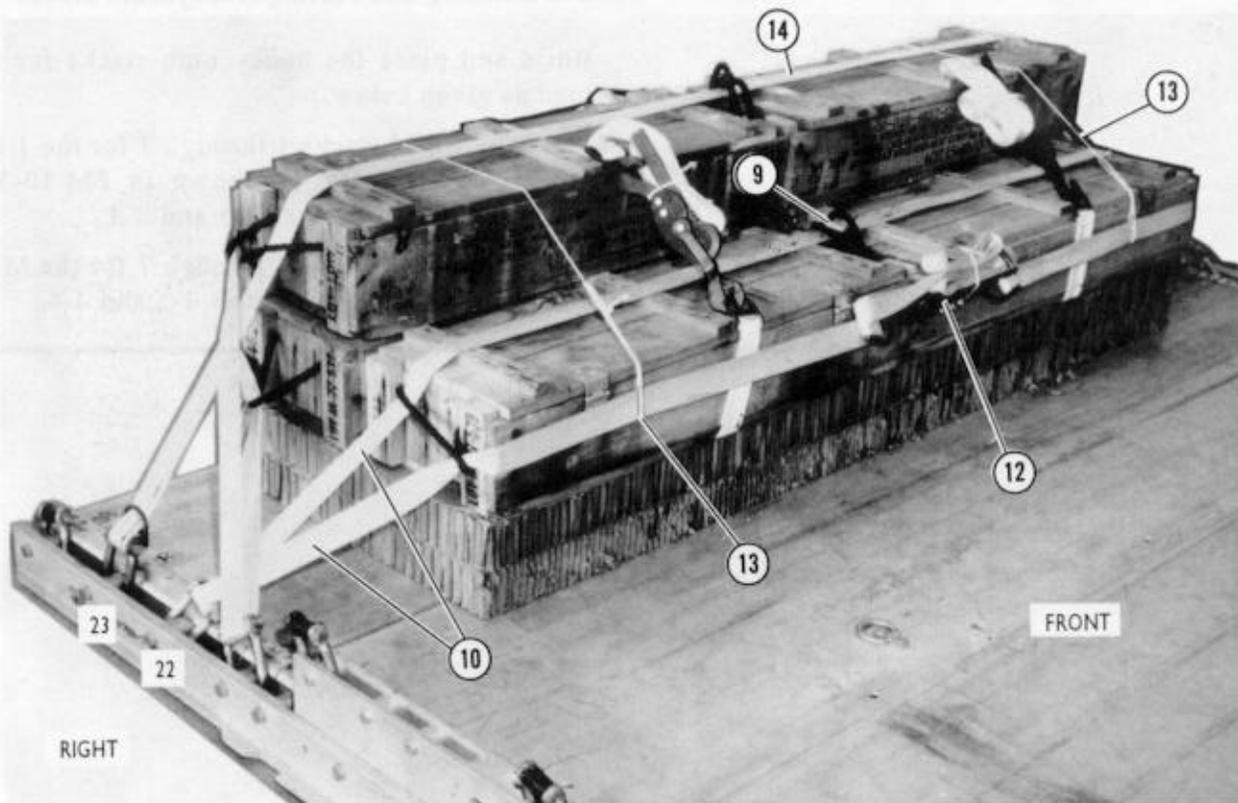
- ① Place two 74- by 24-inch pieces of honeycomb 4 inches from the rear edge of the platform.
- ② Place two 15-foot lashings from front to rear on the honeycomb.
- ③ Place six ammunition boxes on the honeycomb as shown.
- ④ Secure the lashings placed in step 2 above with D-rings and load binders. Avoid placing the load binders on the rear or top sides of the boxes.

Figure 4-4. Six boxes of ammunition stowed on the rear of the platform



- ⑤ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Place the double D-rings at the center of the bottom boxes at the rear of the platform.
- ⑥ Pass one end of the lashing through the handle of the bottom box, through clevis 21, up through the handle of the top box, and back to the center of the top boxes.
- ⑦ Pass the other end of the lashing to the other side of the load as in step 6, but using clevis 21A.
- ⑧ Secure the lashing with two D-rings and a load binder on the rear side of the top ammunition boxes.

Figure 4-4. Six boxes of ammunition stowed on the rear of the platform (continued)



- ⑨ Form a 30-foot lashing according to FM 10-500-2/TO 13C7-1-5. Place the double D-rings between the two front boxes.
- ⑩ Pass one end of the lashing through the handle of the right box, through clevis 22, and back through the right box handle.
- ⑪ Pass the other end of the lashing through the handle of the left box, through clevis 22A, and back through the left box handle (not shown).
- ⑫ Secure the lashing in front of the boxes with two D-rings and a load binder.
- ⑬ Tie the lashings together with two lengths of type III nylon cord on the right and left sides of the load.
- ⑭ Pass the free end of a 15-foot lashing through clevis 23 and through its own D-ring. Run the lashing over the top rear boxes through the box handles. Invert clevis 23A. Fit a D-ring to the end of the lashing, and secure the lashing to clevis 23A with a load binder.

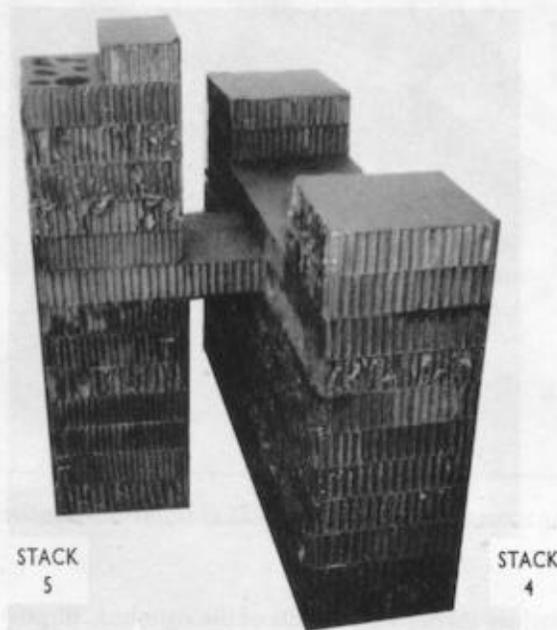
Figure 4-4. Six boxes of ammunition stowed on the rear of the platform (continued)

4-4. Building and Placing Honeycomb Stacks

Build and place the honeycomb stacks for this load as given below.

a. Build stacks 1 through 3 for the 1 1/4-ton HMMWV truck as shown in FM 10-517/TO 13C7-1-111, Figures 2-3 and 2-4.

b. Build stacks 4 through 7 for the M102 howitzer as shown in Figures 4-5 and 4-6.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	7	48	12	Honeycomb	Form a stack.
	1	12	30	Honeycomb	Center honeycomb on the stack to form a bridge to the rear.

Figure 4-5. Honeycomb stacks 4 and 5 prepared

Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	2	18	12	Honeycomb	Place one piece of honeycomb on each side of bridge and flush with stack.
	1	48	12	Honeycomb	Place honeycomb flush over bridge and adjacent pieces.
	4	12	12	Honeycomb	Place two pieces flush on each side of the stack.
	7	12	12	Honeycomb	Form stack. Center honeycomb under the bridge from stack 4.
	5	12	12	Honeycomb	Stack honeycomb over bridge, flush with base.
	1	12	6	Honeycomb	Place honeycomb on front edge of stack.

Figure 4-5. Honeycomb stacks 4 and 5 prepared (continued)

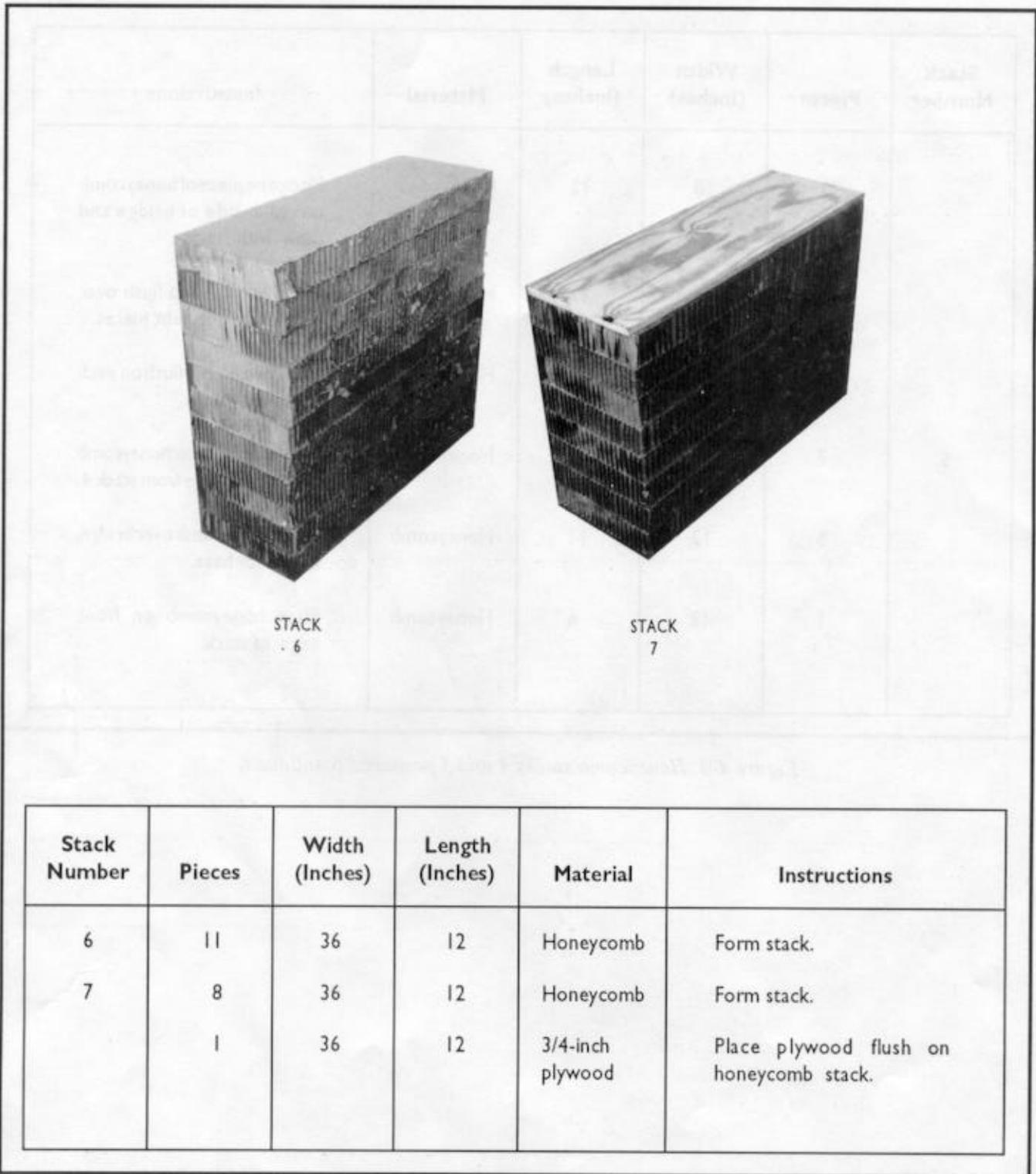
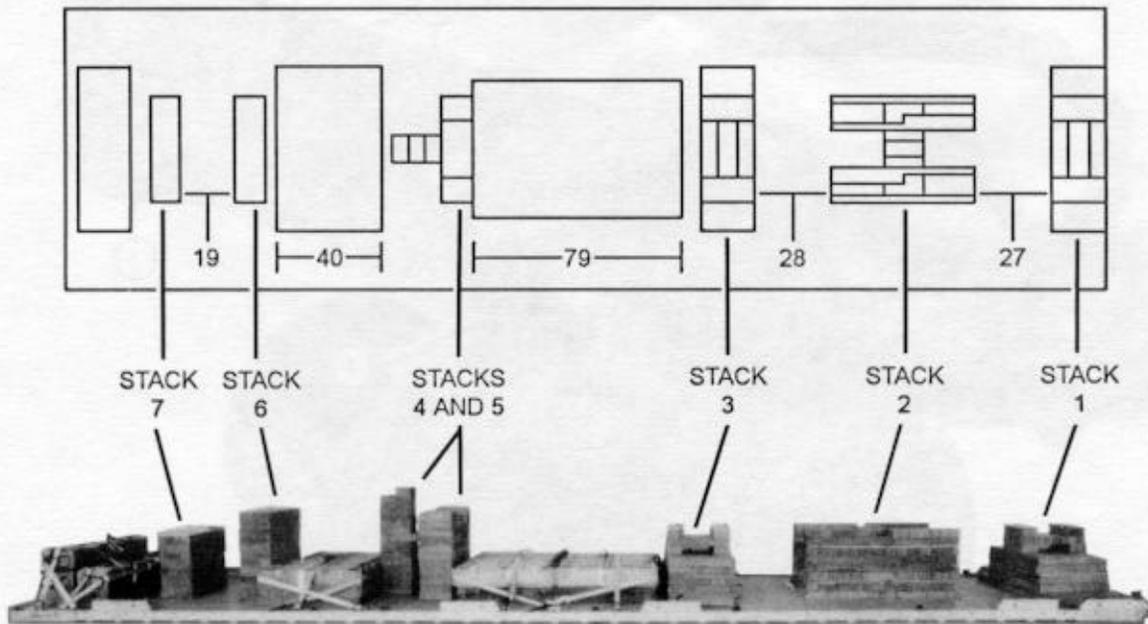


Figure 4-6. Honeycomb stacks 6 and 7 prepared

c. Place the stacks on the platform as shown in Figure 4-7.

Notes: 1. All measurements are given in inches.
2. This drawing is not drawn to scale.



Stack Number	Position of Stack on Platform
1	Place stack: Centered and flush with the front edge of the platform.
2	Centered 27 inches from stack 1.
3	Centered 28 inches from stack 2.
4 and 5	Centered 79 inches from stack 3.
6	Centered 40 inches from stack 5.
7	Centered 19 inches from stack 6.

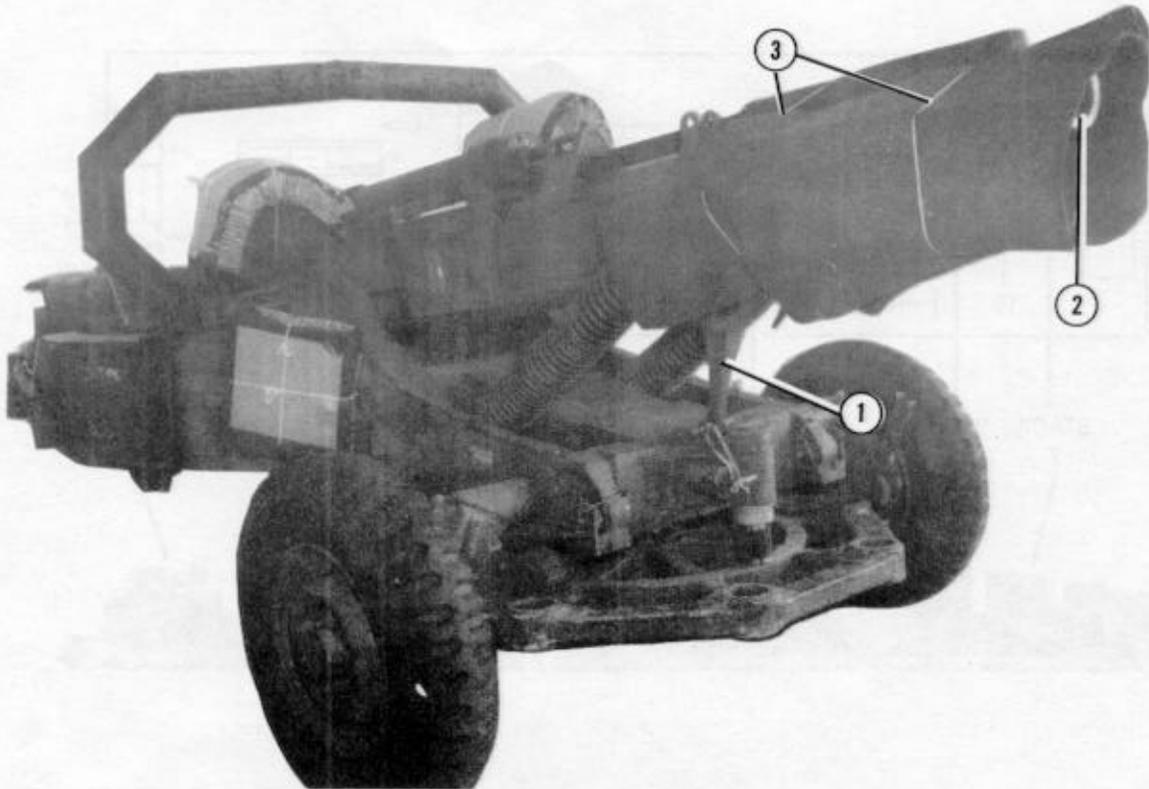
Figure 4-7. Honeycomb stacks placed on platform

4-5. Preparing Howitzer and Truck

Prepare the howitzer and truck as described below.

- a. Prepare the howitzer as shown in Figure 4-8.
- b. Prepare the truck as described in FM 10-517/TO 13C7-1-111, paragraph 2-4a through e, g

through i, and as shown in Figures 2-7 through 2-9, Figure 2-10 (steps 1, 2, and 3), Figure 2-11, Figure 2-12 (omit the padding on the rear lower control arms), and Figure 2-13 (omit step 2).

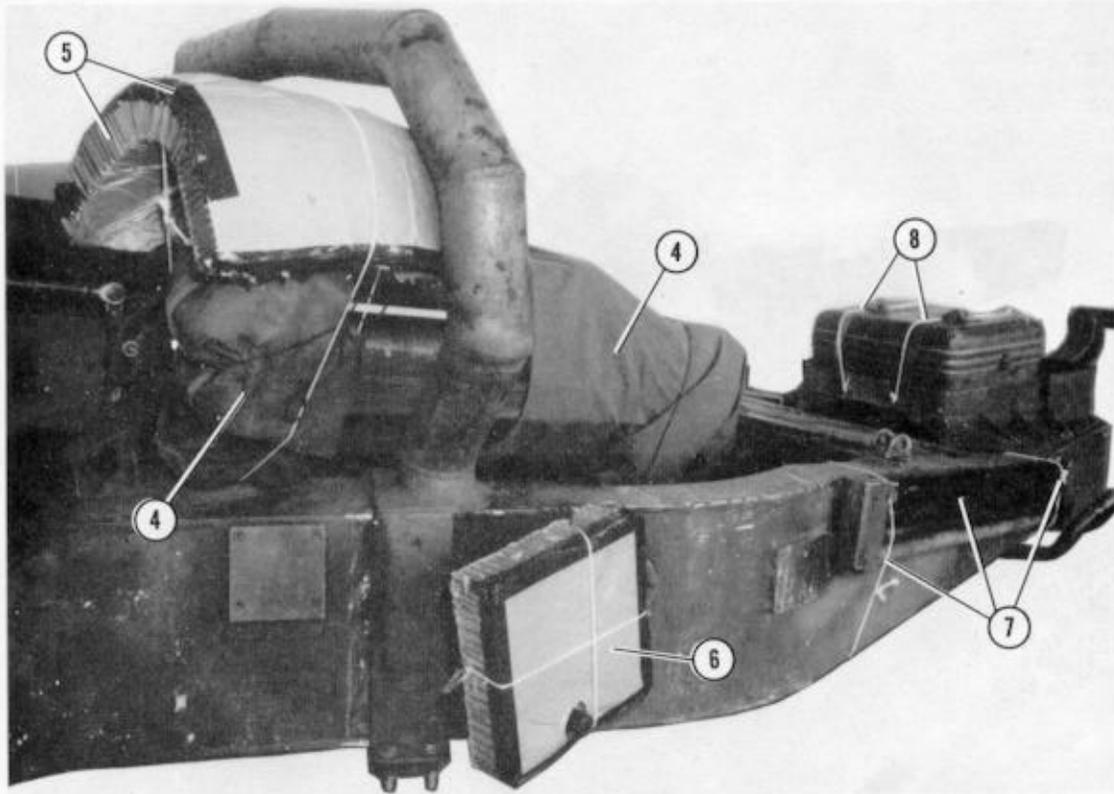


- ① Secure the gun in the out-of-battery position and lock the travel lock.

Note: Have artillery personnel assist with step 1.

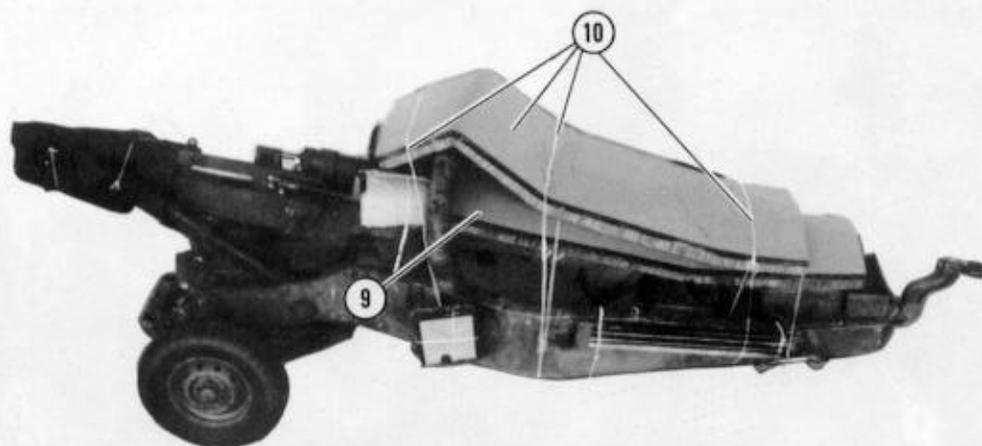
- ② Plug the gun muzzle with the plug provided.
- ③ Wrap the forward 3 feet of the gun tube with two pieces of 36- by 36-inch felt tied in place with type III nylon cord.

Figure 4-8. Howitzer prepared



- ④ Cover the sights and the breechblock with the covers provided.
- ⑤ Cover each sight with an 18- by 24-inch piece of honeycomb. Tape the edges of the honeycomb and tie it to the sight mounts with type III nylon cord.
- ⑥ Tie a 12- by 12-inch piece of honeycomb over the traversing and elevation wheels with type III nylon cord. Cut a hole in each piece of honeycomb to allow for the wheel handle.
- ⑦ Secure the sections of the rammer staff in their mounts on the left trail with two lengths of type III nylon cord.
- ⑧ Secure the sight case in its mount with the straps provided. Tie the case to the howitzer with two lengths of type III nylon cord.

Figure 4-8. Howitzer prepared (continued)



- 9 Place a 36- by 96-inch piece of honeycomb over the breechblock and the sight case. Make a 5- by 5-inch cutout in each front corner to clear the sights. Make a third 5- by 5-inch cutout to allow for the breech operator handle. Tie the honeycomb in place with type III nylon cord.
- 10 Place a 36- by 96-inch piece of honeycomb over the roll bar and over the piece placed in step 9. Tie it to convenient points with type III nylon cord.

Figure 4-8. Howitzer prepared (continued)

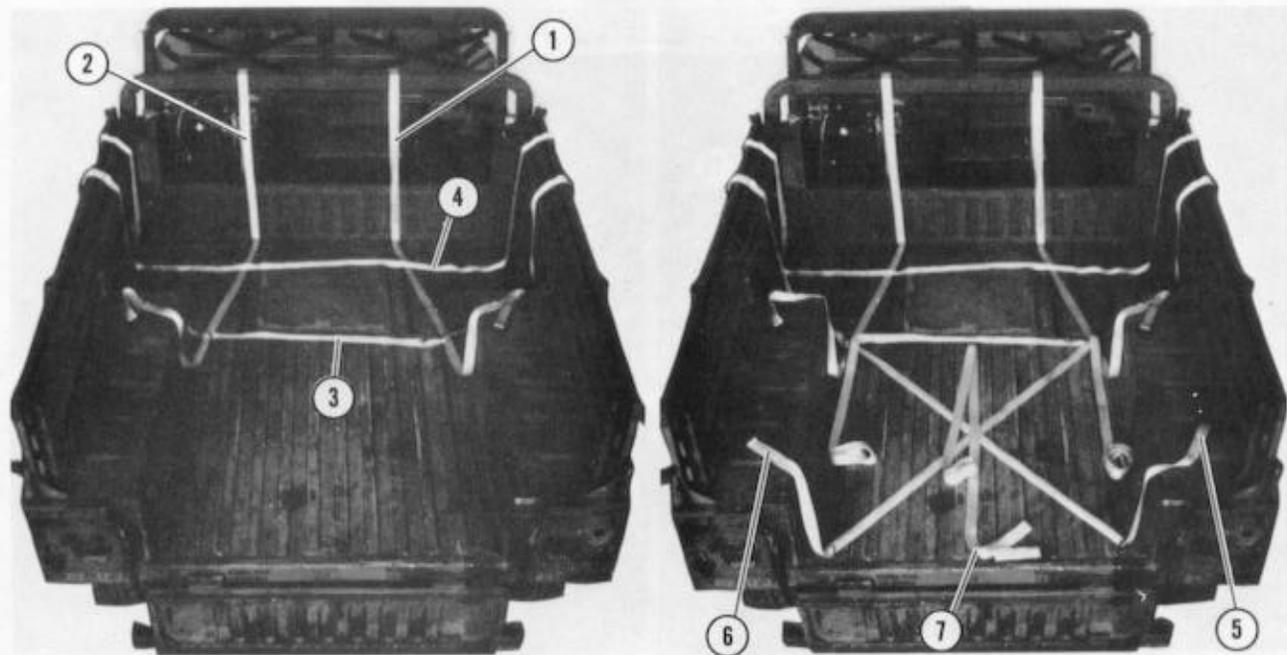
4-6. Stowing Howitzer Equipment and Ammunition in Truck and Installing Body Side Boards

Stow the howitzer equipment and ammunition in the truck and install the body side protection boards as described below.

a. Stow the howitzer equipment, the gun crew equipment, and eight boxes of 105-millimeter ammunition in the bed of the truck as shown in

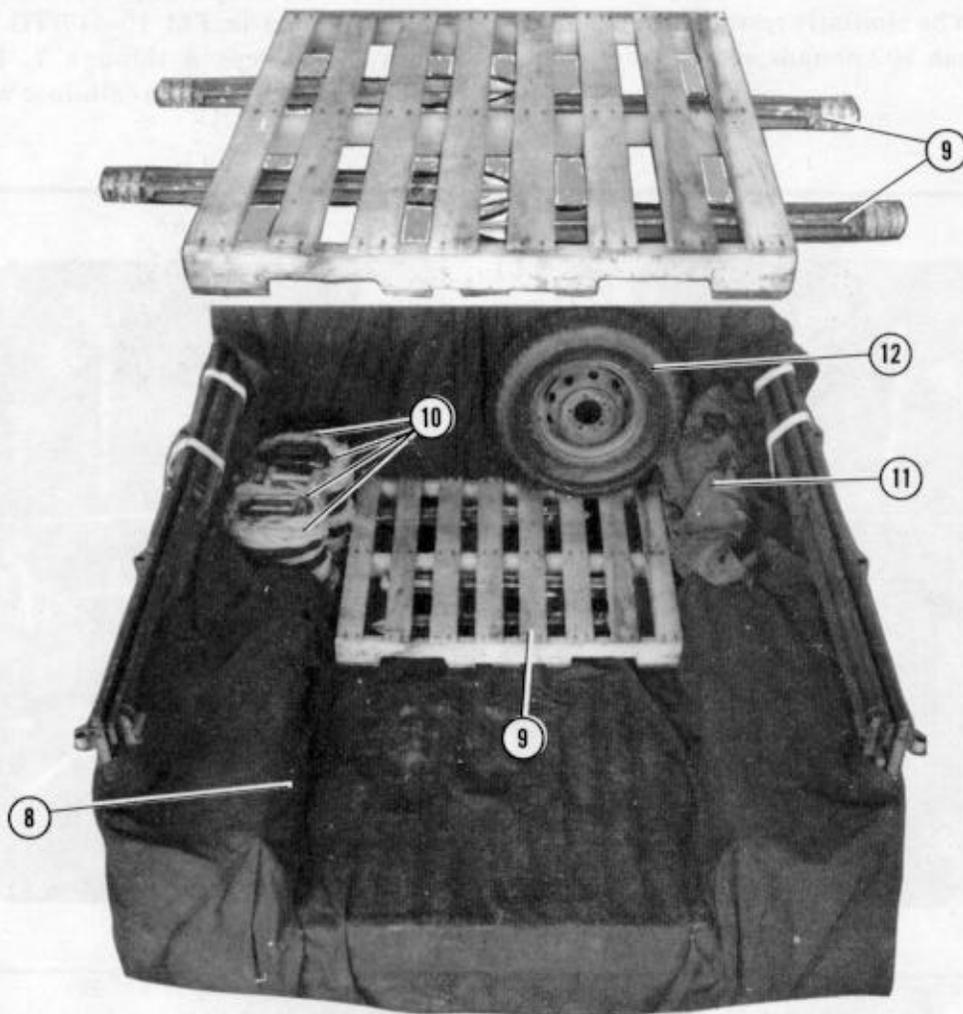
Figures 4-9 and 4-10. Loads that vary from the load shown must be similarly restrained and must weigh no less than 800 pounds and no more than 2,000 pounds.

b. Install the body side protection boards on the truck as shown in FM 10-517/TO 13C7-1-111, Figure 2-13, steps 4 through 7. Pad the load binder over the hood with cellulose wadding taped in place.



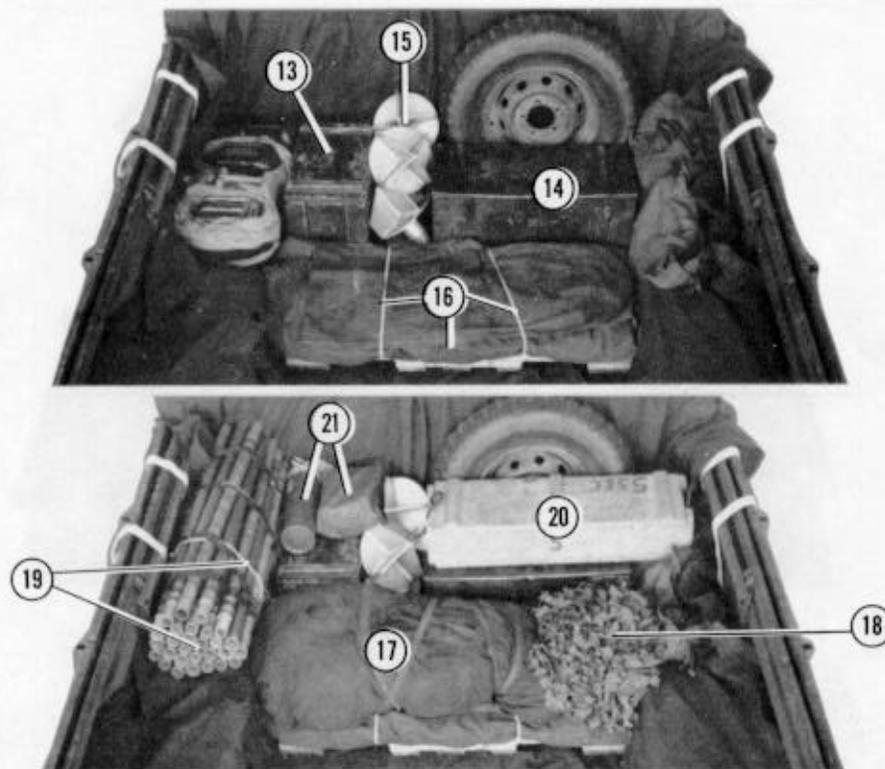
- ① Pass a 15-foot lashing through the right front and right center tie-down rings.
- ② Pass a 15-foot lashing through the left front and left center tie-down rings.
- ③ Pass a 15-foot lashing through both center tie-down rings.
- ④ Place a 15-foot lashing across the cargo bed 10 inches from the front.
- ⑤ Pass a 15-foot lashing through the right rear and left center tie-down rings.
- ⑥ Pass a 15-foot lashing through the left rear and right center tie-down rings.
- ⑦ Pass a 15-foot lashing through both center tie-down rings.

Figure 4-9. Howitzer equipment stowed in truck



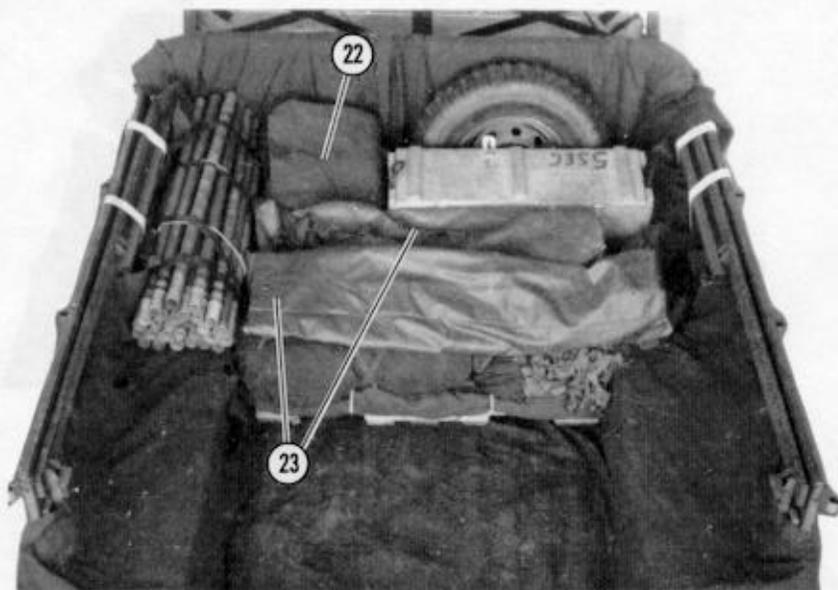
- ⑧ Place a large ammunition tarp over the cargo bed.
- ⑨ Place the four base plate stakes in the holes of a common wood pallet. Place the pallet in the front of the cargo bed.
- ⑩ Pad two filled fuel cans and two filled water cans with cellulose wadding. Place them against the left front of the cargo bed.
- ⑪ Place the sling bags in the right front of the cargo bed.
- ⑫ Place the spare wheel on the pallet and against the front wall.

Figure 4-9. Howitzer equipment stowed in truck (continued)



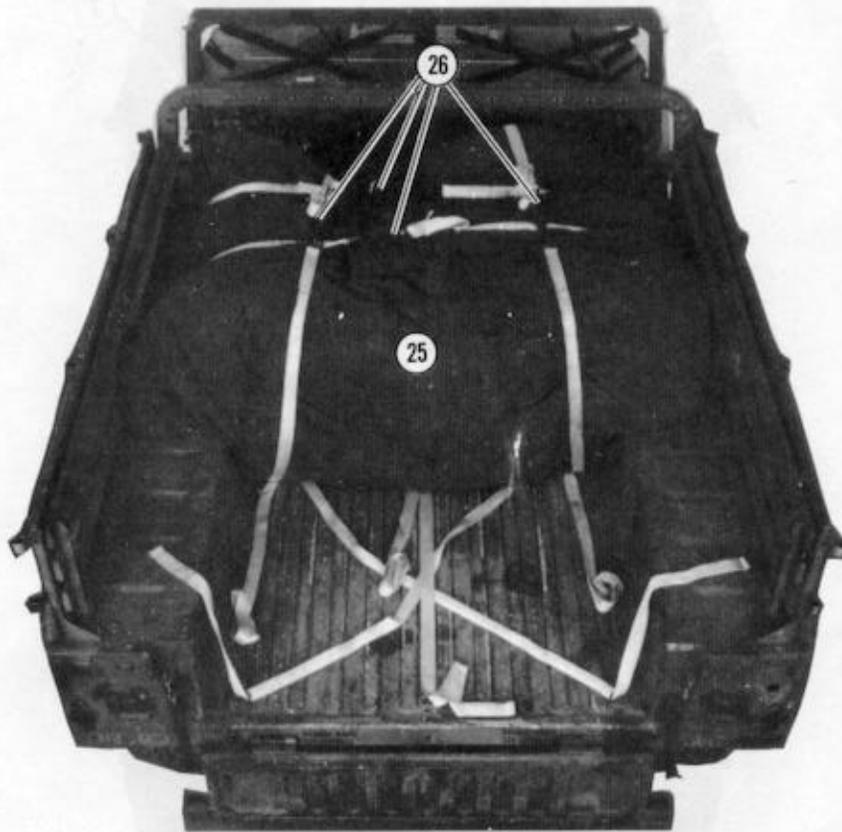
- ⑬ Place the gun display unit box against the fuel cans.
- ⑭ Place the section chest against the wheel and the sling bag.
- ⑮ Set the self-emplacment stakes between the section chest and the gun display unit box.
- ⑯ Fold the A-22 bag and tie it with two lengths of 1/2-inch tubular nylon webbing. Place it on the pallet behind the boxes.
- ⑰ Fold the section tent and place it on top of the A-22 bag.
- ⑱ Place the camouflaged net on the A-22 bag next to the tent.
- ⑲ Place the camouflaged net poles on the left side. Tie them together with 1/2-inch tubular nylon webbing.
- ⑳ Place the NBC contingency box on top of the section chest.
- ㉑ Place the bag of tent stakes and the fire extinguisher on top of the gun display unit box.

Figure 4-9. Howitzer equipment stowed in truck (continued)



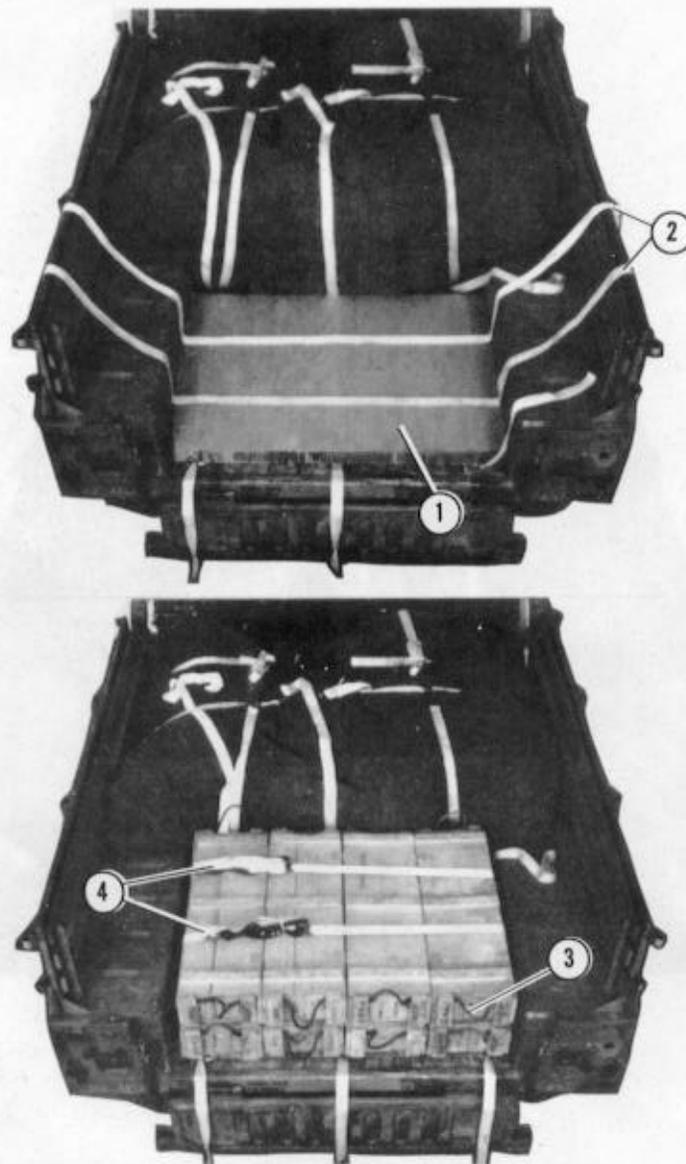
- ②② Fold the canvas truck cover and set it over the tent stake bag and the fire extinguisher.
- ②③ Set the advance party bag and the camouflage net bag over the section tent.
- ②④ Roll the large camouflage net, tie it with two lengths of type VIII or other scrap webbing material and place it over the load.

Figure 4-9. Howitzer equipment stowed in truck (continued)



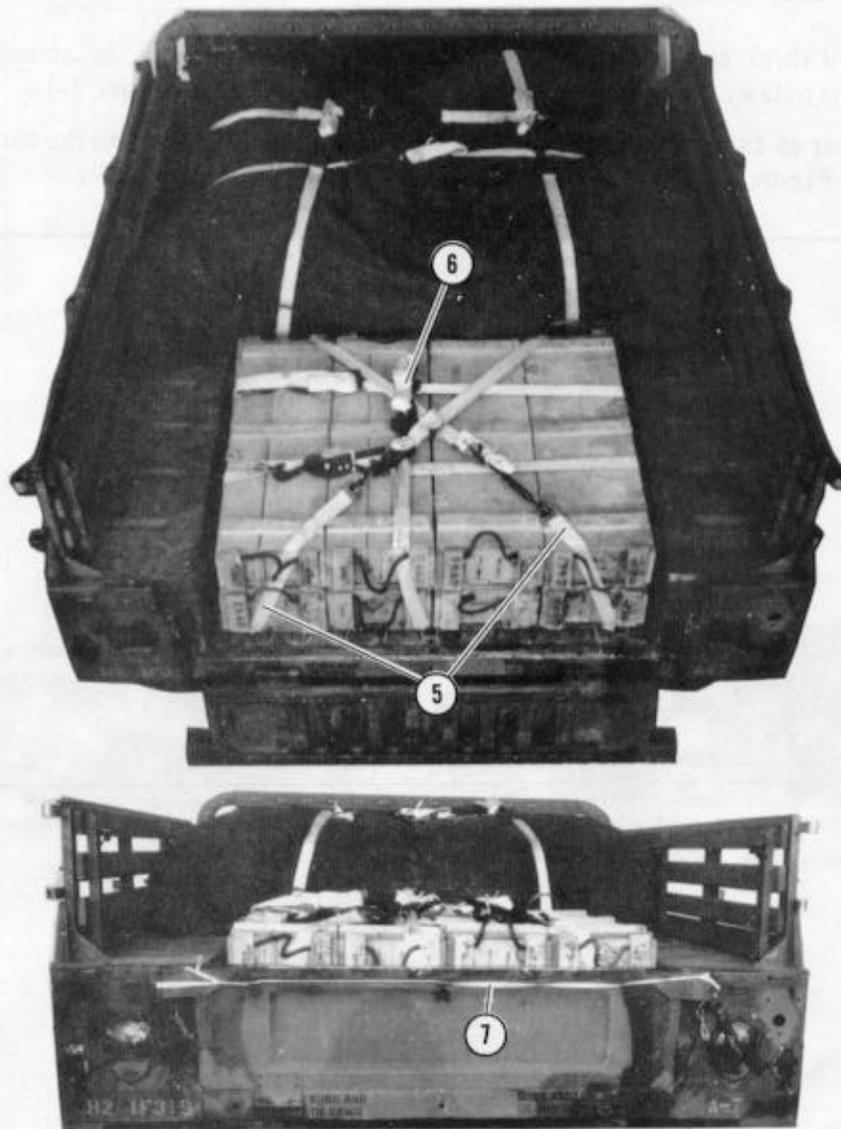
- ②5 Fold the tarp over the load.
- ②6 Secure the lashings placed in steps 1, 2, 3, and 4 over the load with D-rings and load binders.

Figure 4-9. Howitzer equipment stowed in truck (continued)



- ① Place a 36- by 50-inch piece of honeycomb in the rear of the truck bed.
- ② Lay two 15-foot lashings over the honeycomb as shown.
- ③ Place eight ammunition boxes over the honeycomb and lashings.
- ④ Secure the lashings placed in step 2 over the boxes with D-rings and load binders.

Figure 4-10. Ammunition stowed in truck



- 5 Pass the ends of the lashings placed in steps 5 and 6, Figure 4-9, through the nearest box handles and over the boxes. Secure the lashings with D-rings and load binders.
- 6 Pass the ends of the lashing placed in step 7, Figure 4-9, through the upper box handles and over the boxes. Secure the lashing with a D-ring and a load binder.
- 7 Close the tailgate and secure it with a length of 1/2-inch tubular nylon webbing.

Figure 4-10. Ammunition stowed in truck (continued)

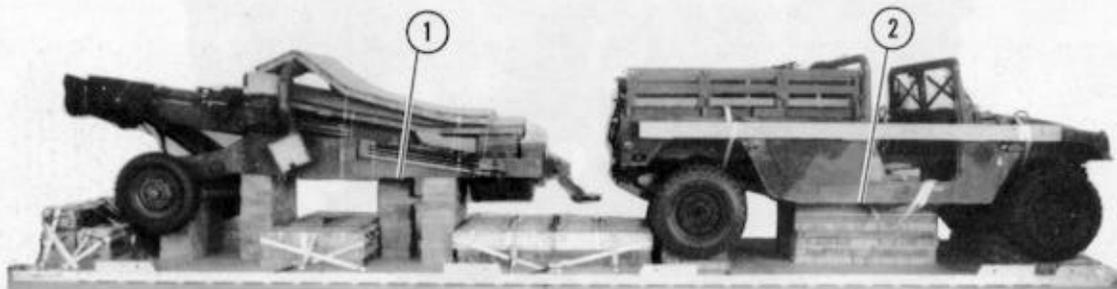
4-7. Setting Howitzer and Truck on Platform

Lift the howitzer and truck and set them on the platform as described below.

a. Lift the howitzer as explained in paragraph 3-7 and as shown in Figure 3-14.

b. Lift the truck as shown in FM 10-517/TO 13C7-1-111, Figure 2-16.

c. Set the howitzer and the truck on the platform as shown in Figure 4-11.



- ① Set the howitzer on stacks 4, 5, and 6 so that the breechblock rests on stack 4 and the base plate rests on stack 6.
- ② Set the truck on stacks 1, 2, and 3 so that the suspension cross members rest squarely on stacks 1 and 3. Be sure that the frame rails rest squarely on stack 2.

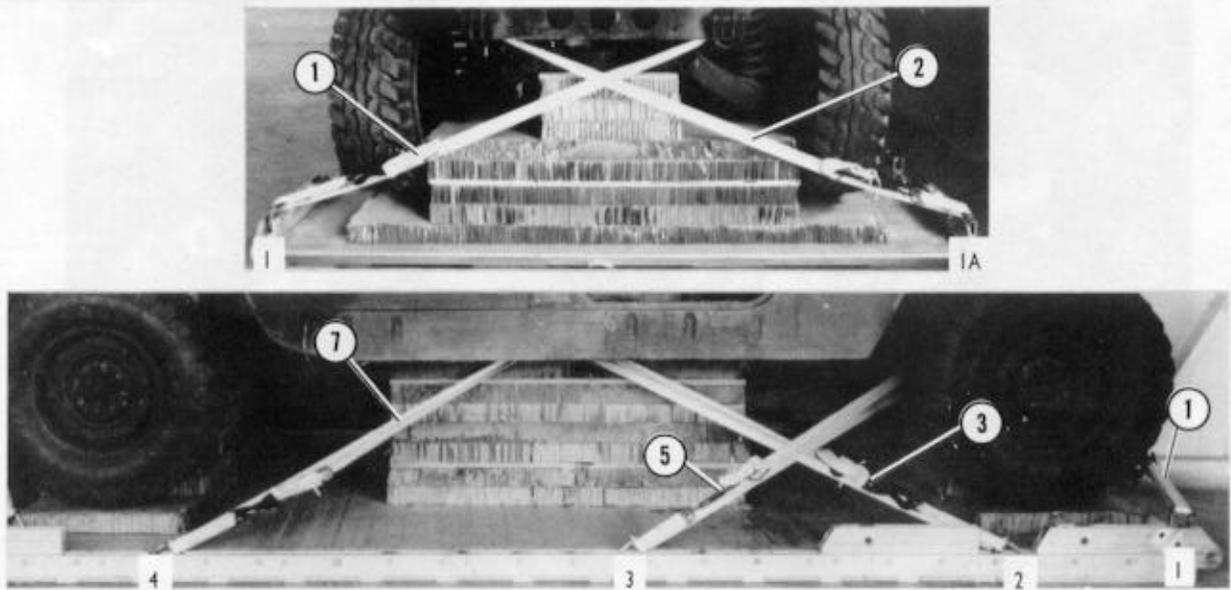
Figure 4-11. Howitzer and truck set on platform

4-8. Lashing Howitzer and Truck

Lash the howitzer and truck to the platform with twenty-four 15-foot lashings as shown in

Figures 4-12, 4-13, and 4-14. Install and safety the lashings according to FM 10-500-2/TO 13C7-1-5.

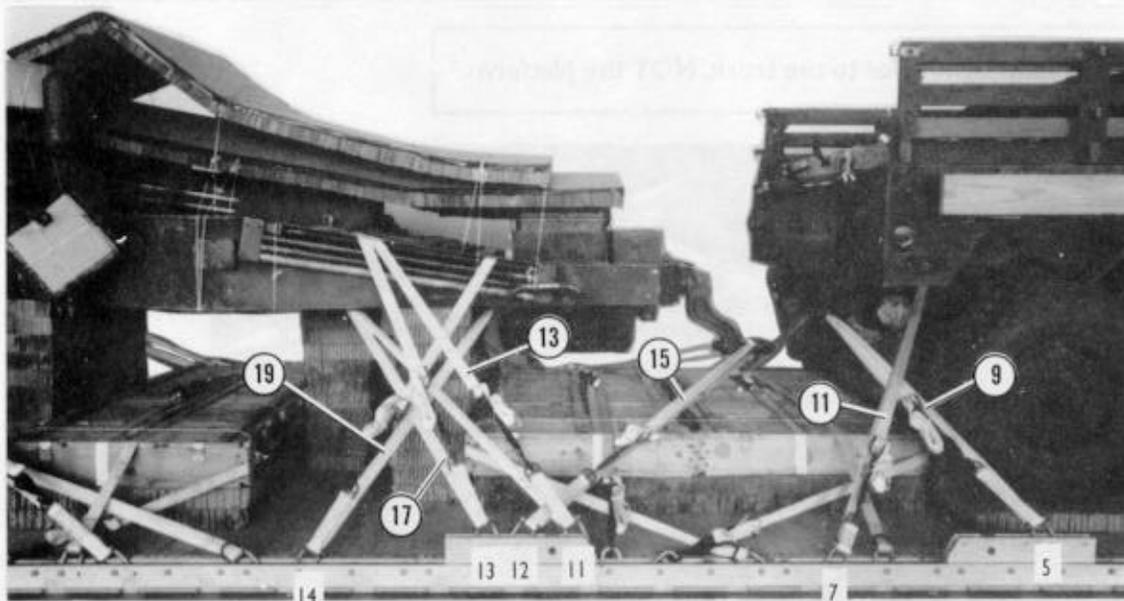
Note: Left and right refer to the truck, NOT the platform.



Lashing Number	Tie-Down Clevis Number	Instructions
1	1	Pass lashing:
2	1A	Through tie-down bracket on end of left frame rail.
*3	2	Through tie-down bracket on end of right frame rail.
*4	2A	Around right frame rail cross member.
5	3	Around left frame rail cross member.
6	3A	Around right lower control arm.
*7	4	Around left lower control arm.
*8	4A	Around right frame rail cross member.
		Around left frame rail cross member.
*Pre-positioned lashings.		

Figure 4-12. Lashings 1 through 8 installed

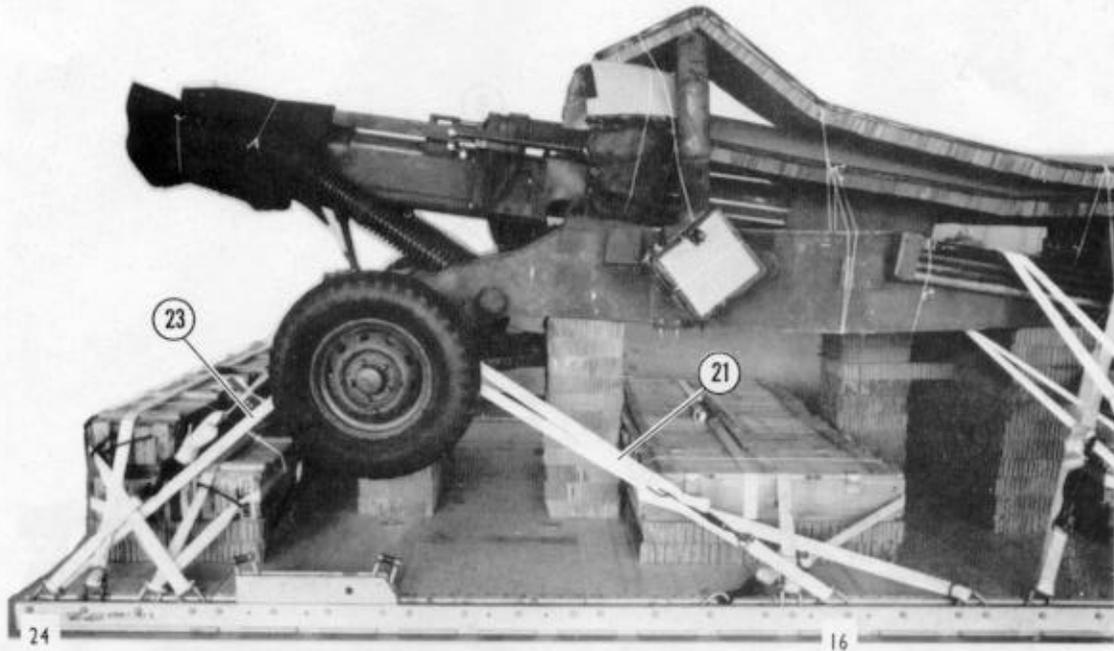
Note: Left and right refer to the truck and howitzer, NOT the platform.



Lashing Number	Tie-Down Clevis Number	Instructions
9	5	Pass lashing: Through right lifting shackle on rear bumper.
10	5A	Through left lifting shackle on rear bumper.
11	7	Through tie-down bracket behind right rear coil spring.
12	7A	Through tie-down bracket behind left rear coil spring.
13	11	Around left trail.
14	11A	Around right trail.
15	12	Through lunette.
16	12A	Through lunette.
17	13	Around left trail.
18	13A	Around right trail.
19	14	Around left trail.
20	14A	Around right trail.

Figure 4-13. Lashings 9 through 20 installed

Note: Left and right refer to the howitzer, NOT the platform.

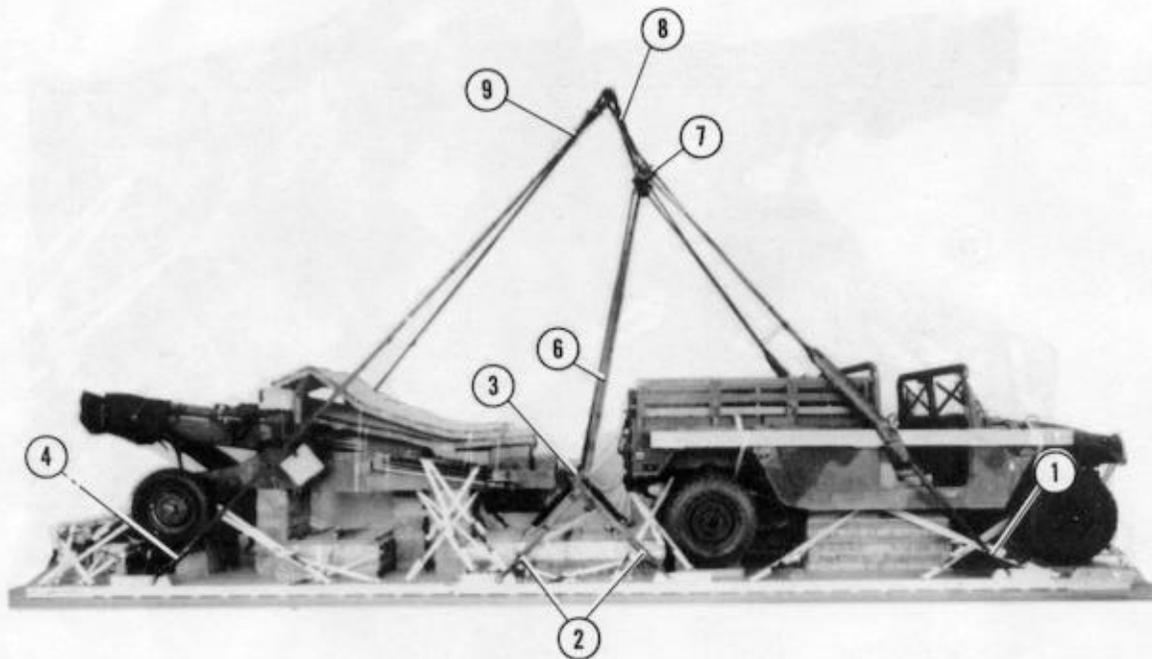


Lashing Number	Tie-Down Clevis Number	Instructions
21	16	Pass lashing: Around left wheel support arm.
22	16A	Around right wheel support arm.
23	24	Around left wheel support arm.
24	24A	Around right wheel support arm.

Figure 4-14. Lashings 21 through 24 installed

4-9. Installing and Safetying Suspension Slings

Install the suspension slings according to FM 10-500-2/TO 13C7-1-5 and as shown in Figures 4-15. Pad and safety the suspension slings as shown in Figure 4-16.

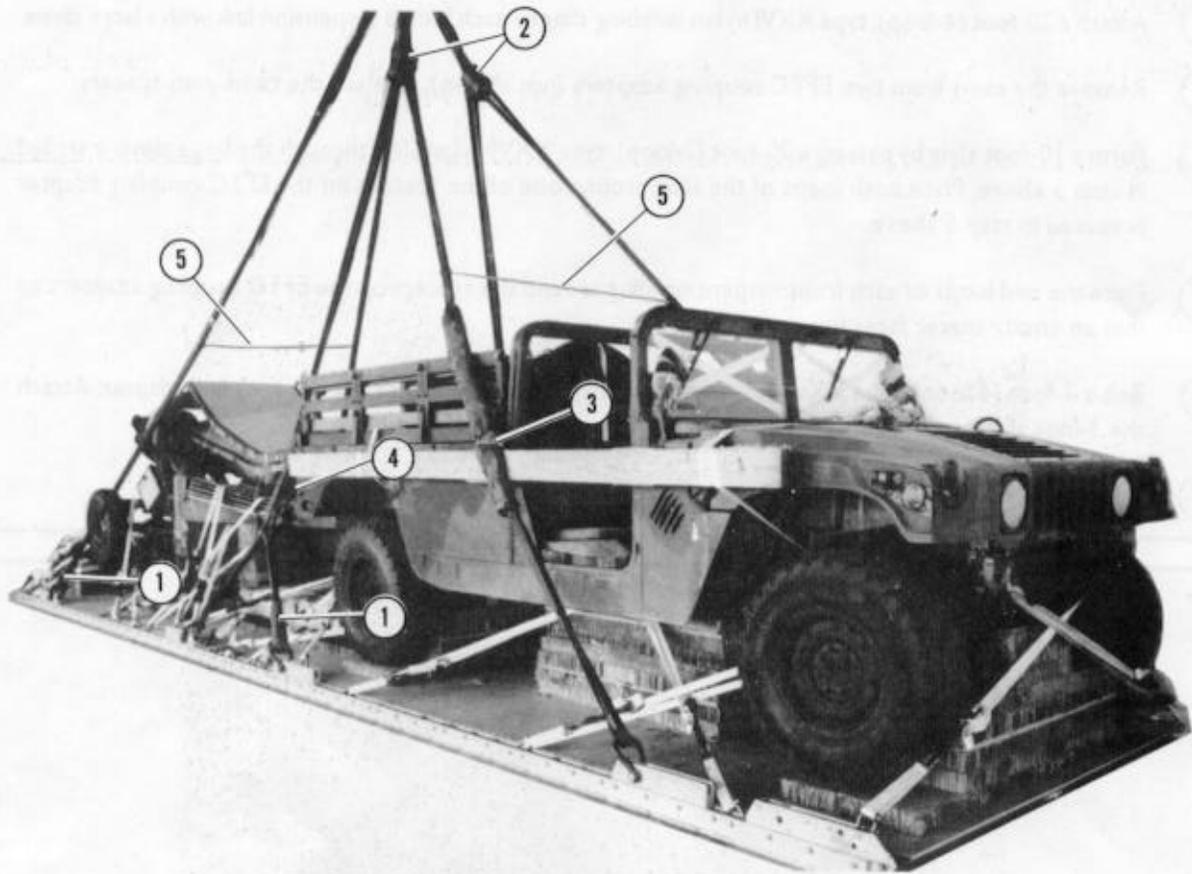


- ① Attach a 16-foot (4-loop), type XXVI nylon webbing sling to each first suspension link with a large suspension clevis.
- ② Attach a 3-foot (4-loop), type XXVI nylon webbing sling to each second and third suspension link with a large suspension clevis.
- ③ Place the 3-foot slings installed in step 2 in the bell portion of a large suspension clevis.

Figure 4-15. Suspension slings installed

- ④ Attach a 20-foot (4-loop), type XXVI nylon webbing sling to each fourth suspension link with a large clevis.
- ⑤ Remove the cams from two EFTC coupling adapters (not shown). Replace the cams with spacers.
- ⑥ Form a 10-foot sling by passing a 20-foot (2-loop), type XXVI nylon sling through the large clevis installed in step 3 above. Place both loops of the sling around one of the spacers on the EFTC coupling adapter prepared in step 5 above.
- ⑦ Place the end loops of each front suspension sling around the spacers on the EFTC coupling adapters so that an empty spacer faces upward.
- ⑧ Bolt a 3-foot (4-loop), type XXVI nylon webbing sling to the top spacer of each coupling adapter. Attach the 3-foot slings to the crane hook.
- ⑨ Attach the loops on the rear suspension slings to the crane hook.

Figure 4-15. Suspension slings installed (continued)



- ① Pad the loops of the suspension slings attached to the second and fourth suspension clevises on each side with 4- by 24-inch pieces of 1/2-inch felt tied in place. Wrap the padding with tape.
- ② Wrap the EFTC coupling adapters with 1/2-inch felt taped in place.
- ③ Pad the front suspension sling 46 inches from the clevis with a 6- by 55-inch piece of felt wrapped with tape. Tie the slings to the truck B-pillar with a length of type III nylon cord.
- ④ Tie the large suspension clevises at the junctions of the center suspension slings to convenient points on the truck with type III nylon cord.
- ⑤ Safety tie the left and right front suspension slings to each other with a double length of 1/2-inch tubular nylon webbing. Safety tie the rear suspension slings to each other in the same way.

Figure 4-16. Suspension slings padded and safetied

4-10. Preparing Stowage Platform and Stowing Cargo Parachutes

Prepare the stowage platform and stow the cargo parachutes as described below.

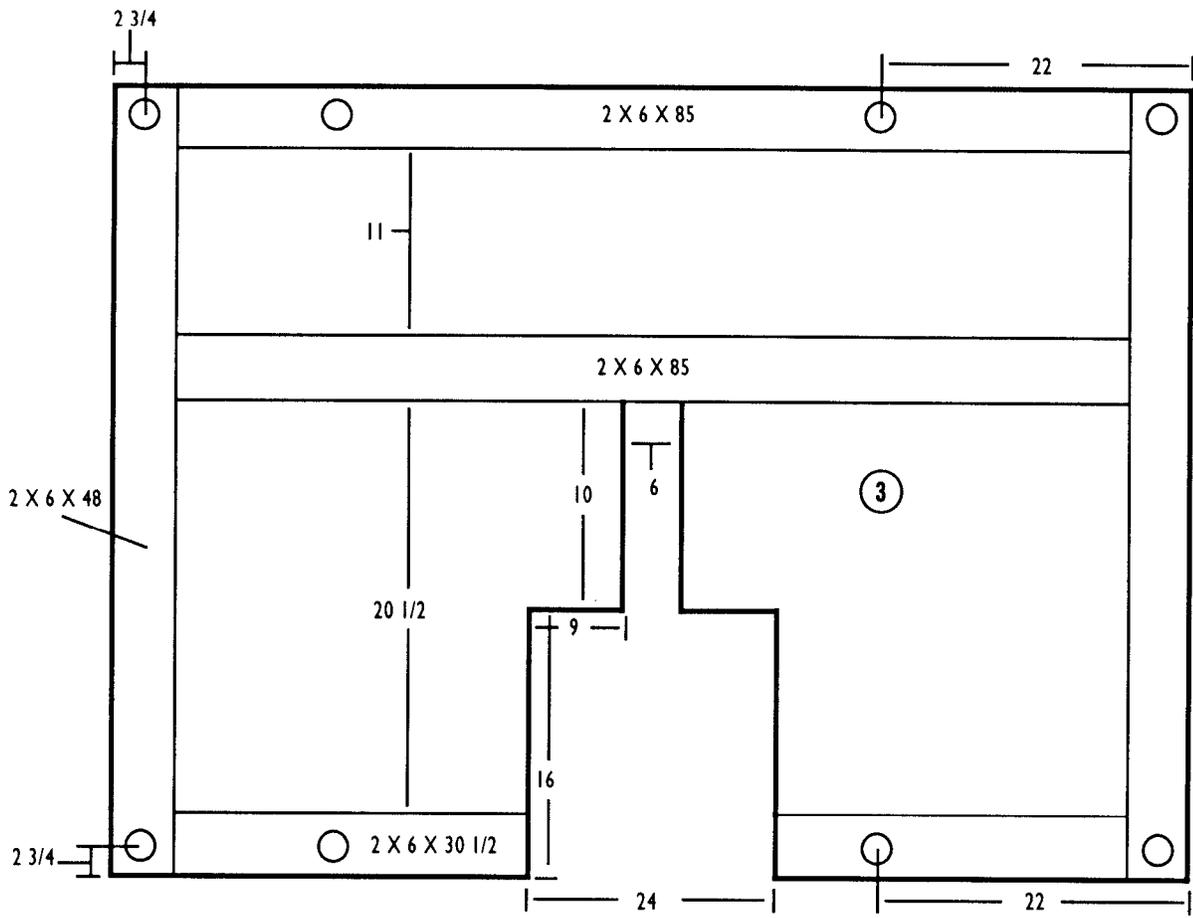
a. Prepare the cargo parachute stowage platform as shown in Figure 4-17.



- ① Place seven 12- by 74-inch pieces of honeycomb flush over the rear ammunition stack even with the rear edge.
- ② Make two 14-layer stacks of 12- by 24-inch honeycomb. Place one stack on each side of the howitzer 30 inches from the rear edge of the platform. Place the stacks 2 inches from the suspension links.

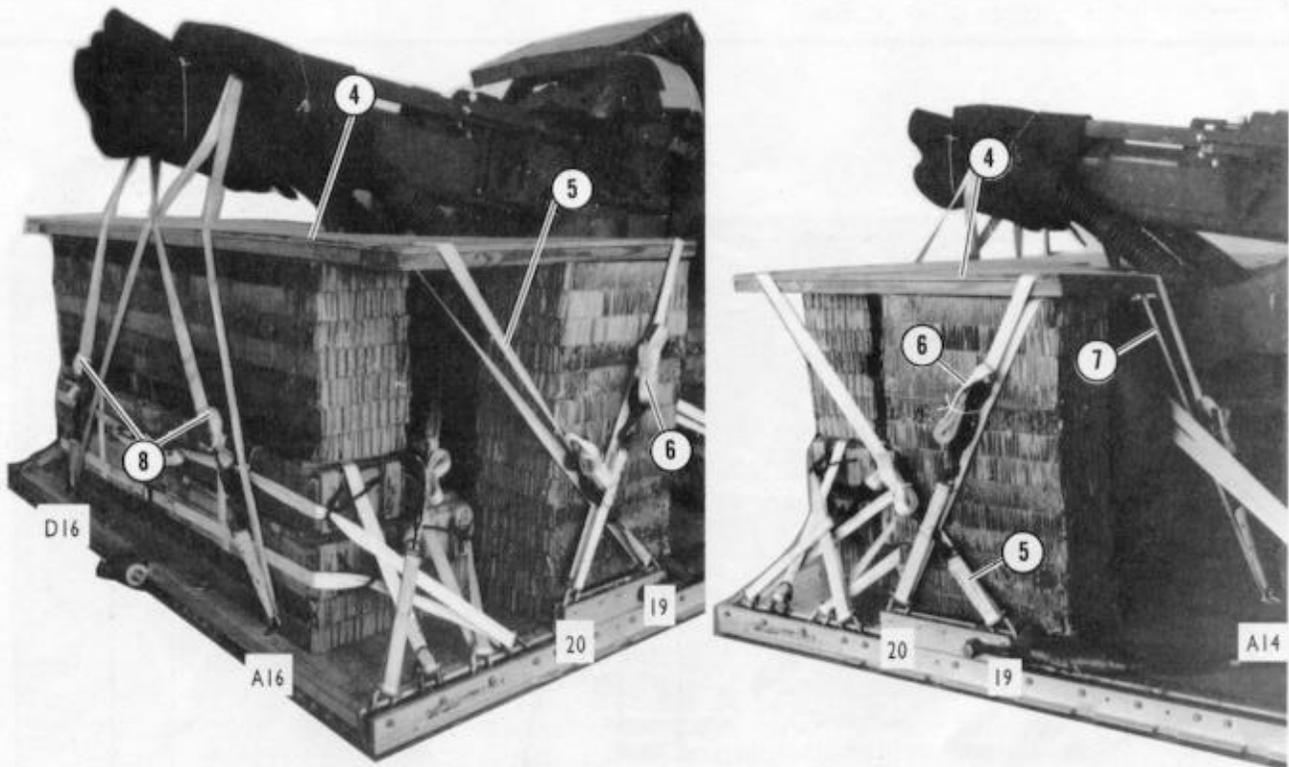
Figure 4-17. Stowage platform prepared

Notes: 1. All measurements are given in inches.
 2. This drawing is not drawn to scale.



③ Construct the parachute stowage platform from a 48-by 96-inch piece of 3/4-inch plywood. Reinforce the edges and center with 2- by 6-inch lumber as shown. Drill 2-inch holes as shown.

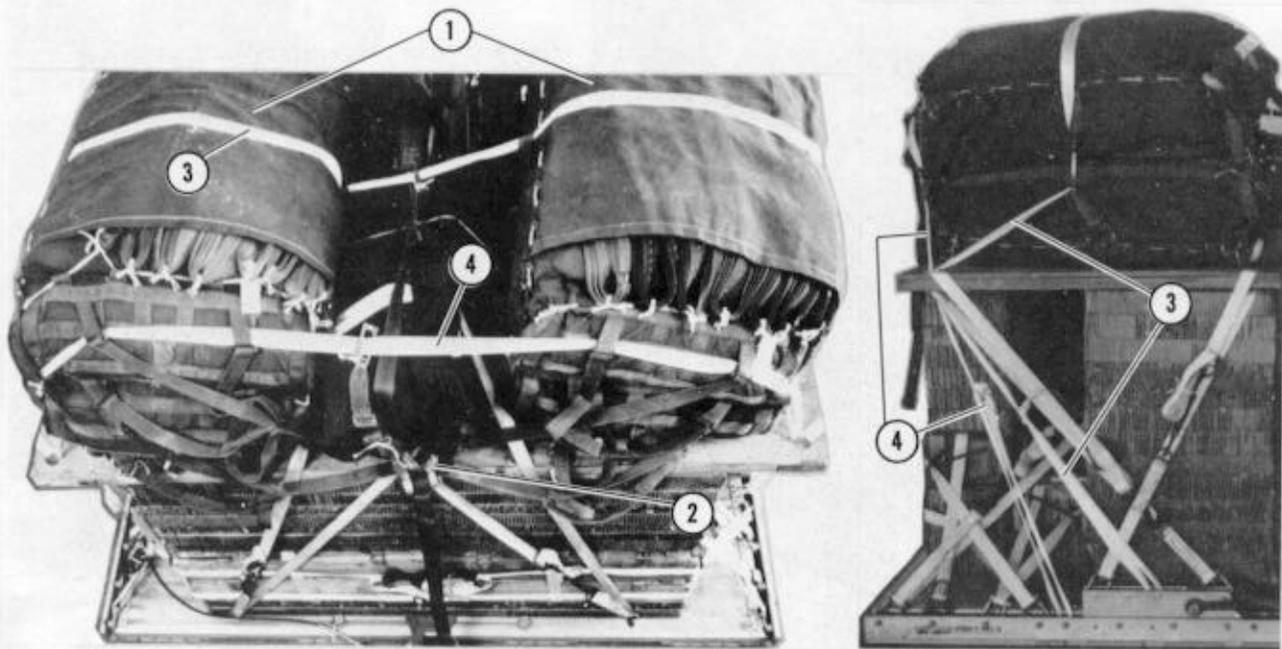
Figure 4-17. Stowage platform prepared (continued)



- ④ Set the stowage platform flush on the honeycomb with the cutout to the front.
- ⑤ Lash the rear holes of the parachute stowage platform to clevises 19 and 19A with two 15-foot lashings.
- ⑥ Lash the front holes of the parachute stowage platform to clevises 20 and 20A with two 15-foot lashings.
- ⑦ Lash the front inside holes of the parachute stowage platform to tie-down rings A14 and B14 with two 15-foot lashings.
- ⑧ Cut a hole in each side of the felt covering the howitzer tube. Lash the tube to tie-down rings A16 and D16 with two 15-foot lashings.

Figure 4-17. Stowage platform prepared (continued)

b. Prepare and stow four G-11B cargo parachutes according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-18.



- ① Stack two G-11B cargo parachutes on each side of the howitzer tube.
- ② Fit the bridle loops of the parachutes onto the arms of a large suspension clevis. Support the clevis with two turns of 1/4-inch cotton webbing tied around the gun barrel.
- ③ Pass the center restraint strap through the bag carrying handles and down through the rear holes in the stowage platform. Tie the center restraint to the second bushing of the rear suspension link.
- ④ Pass the rear restraint strap through the upper bridle assembly attaching loops of both upper parachutes, down through the bag carrying handles, and through the rear holes in the stowage platform. Tie the rear restraint strap to bushings 60 and 60A on the platform side rails.

Figure 4-18. Cargo parachutes stowed

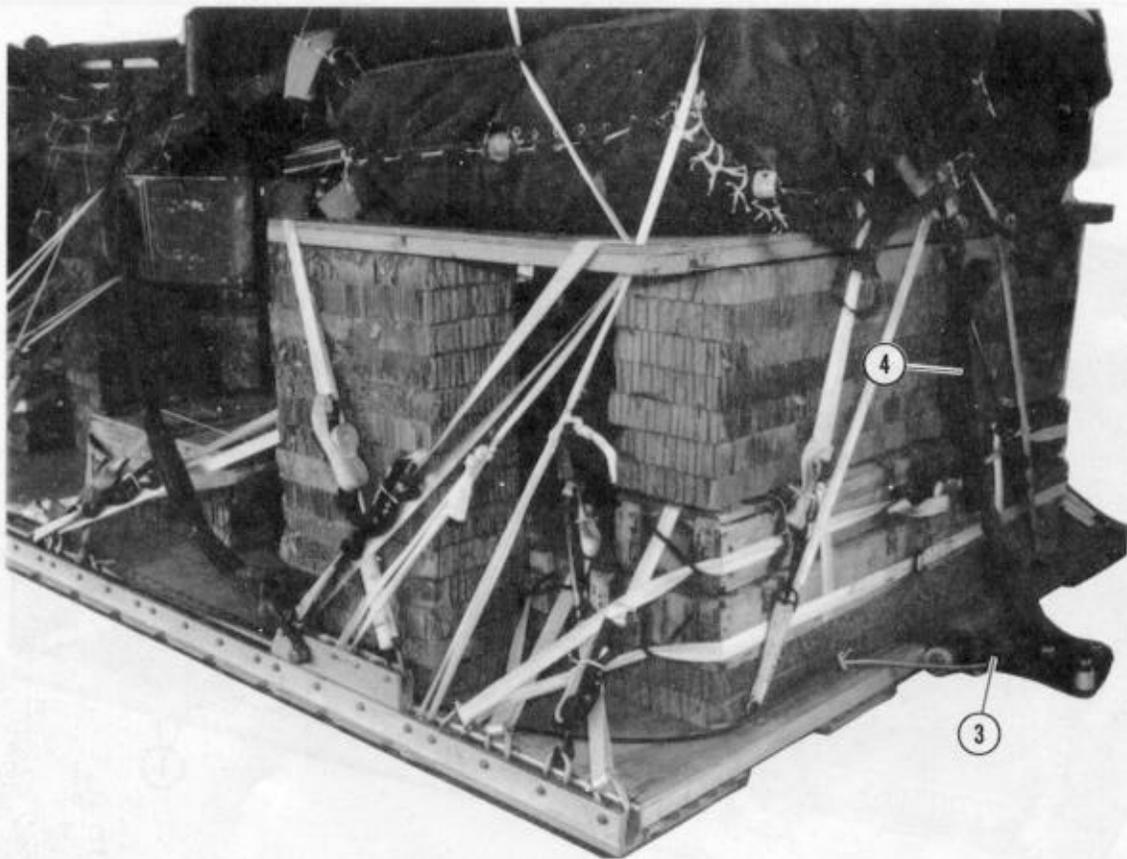
4-11. Installing Extraction System

Install the components of the EFTC system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figures 4-19 and 4-20.



- ① Install the EFTC mounting brackets in the rear (third) mounting holes in the left platform rail.
- ② Attach a 28-foot release cable to the actuator. Install the actuator to the EFTC mounting brackets. Run the cable to the rear of the load.

Figure 4-19. EFTC actuator installed



- ③ Install the latch assembly to the extraction bracket. Attach the release cable to the latch assembly. Safety the cable to tie-down ring C16 with 1/4-inch cotton webbing.
- ④ Install a 9-foot (2-loop), type XXVI nylon webbing sling as the deployment line.

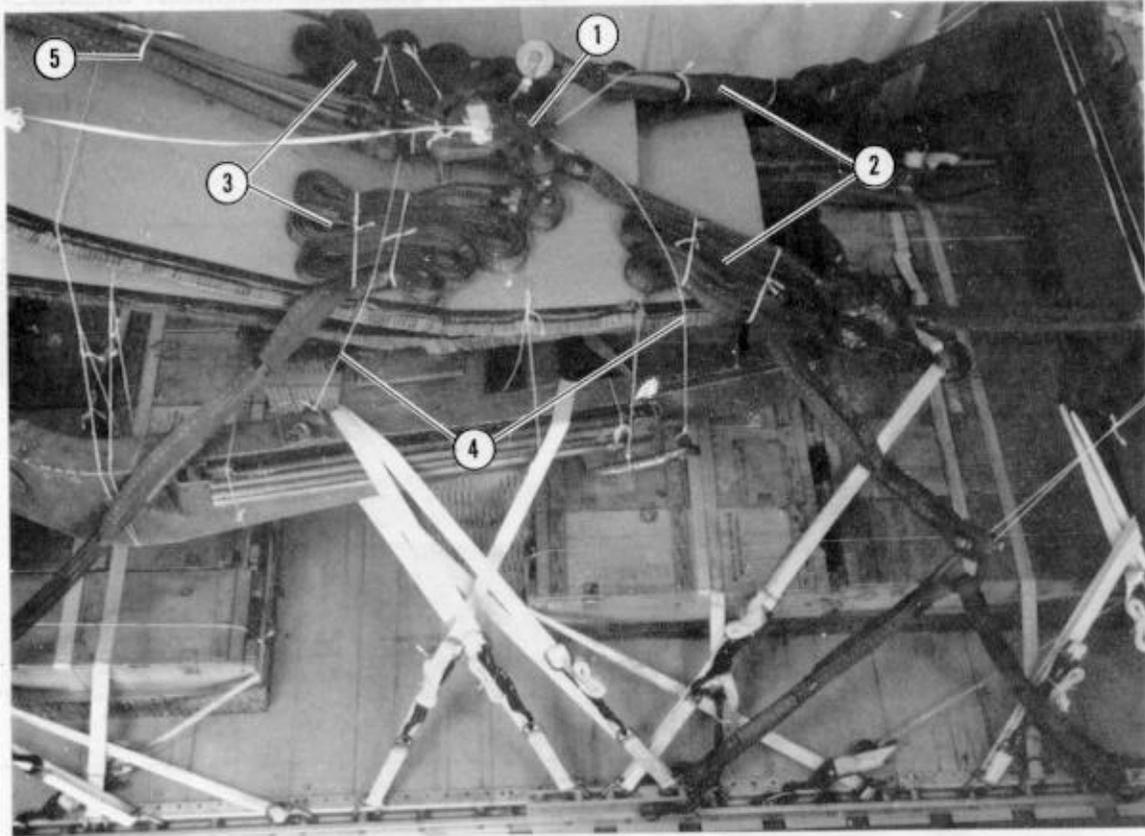
Figure 4-20. EFTC installed on rear of platform

4-12. Installing Provisions for Emergency Restraints

Install provisions for emergency restraints according to FM 10-500-2/TO 13C7-1-5.

4-13. Installing Release System

Prepare and install an M-2 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-21.



- ① Center the M-2 release on the honeycomb covering the howitzer.
- ② S-fold and tie the center suspension slings with type I, 1/4-inch cotton webbing.
- ③ S-fold and tie the rear suspension slings with type I, 1/4-inch cotton webbing.
- ④ Secure the release to convenient points on the howitzer with type III nylon cord.
- ⑤ Tie the riser extensions together with a length of type I, 1/4-inch cotton webbing.

Figure 4-21. M-2 cargo parachute release installed

4-14. Placing Extraction Parachute

Place the extraction parachute as described below.

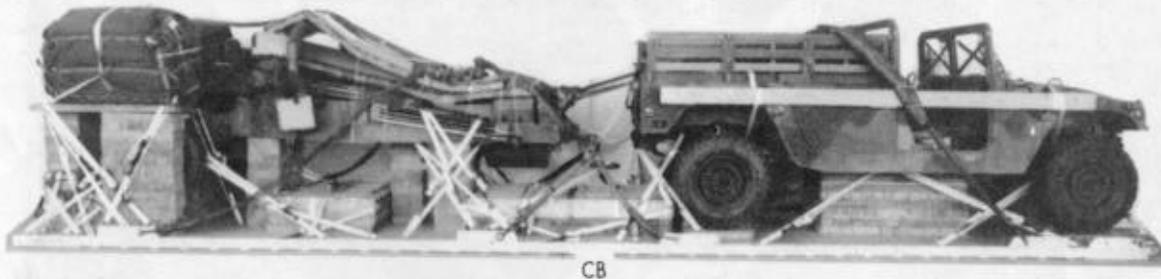
a. C-130 Aircraft. Place a 28-foot cargo extraction parachute and a 60-foot (3-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

b. C-141 Aircraft. Place a 28-foot cargo extraction parachute and a continuous 140-foot (3-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

4-15. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 4-22. Complete DD Form 1387-2, and securely attach it to the load. Indicate on DD Form 1387-2 that the equipment fuel tanks and batteries have been prepared according to AFR 71-4/TM 38-250. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

CAUTION: 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	17,770 pounds
	Maximum load allowed	19,000 pounds
Height	83 inches
Width	108 inches
Length	407 inches
Overhang:	Front (nose bumper)	5 inches
	Rear (extraction system)	18 inches
CB (from front edge of platform)		196 inches
Extraction system		EFTC

Figure 4-22. M102 howitzer with 1 1/4-ton truck and accompanying ammunition rigged for low-velocity airdrop

4-16. Equipment Required

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

Table 4-1. Equipment required for rigging the M102 howitzer with 1 1/4-ton truck and accompanying ammunition on a type V platform for low-velocity airdrop

National Stock Number	Item	Quantity
1670-00-162-4981	Adapter, coupling, EFTC	2
5365-00-405-9293	Spacer	(2)
8040-00-273-8713	Adhesive, paste, 1-gal	As required
	Clevis, suspension:	
4030-00-678-8562	3/4-in (medium)	4
4030-00-090-5354	1-in (large)	13
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-157-6527	Coupling, airdrop, extraction force transfer w 28-ft cable	1
1670-00-360-0329	Cover, link assembly (type IV)	4
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	2
	Line, extraction, type XXVI nylon webbing:	
1670-01-062-6313	60-ft (3-loop) or	1
1670-01-107-7651	140-ft (3-loop)	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	(2)
1670-00-003-1954	Plate, side, 5 1/2-in	(2)
5365-00-007-3414	Spacer, large	(2)
1670-00-783-5988	Type IV	1
5510-00-220-6148	Lumber, 2- by 6-in:	2
	16-in	1
	30 1/2-in	2
	48-in	2
	85-in	2
	150-in	2
5315-00-010-4657	Nail, steel wire, common, 6d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb,	
	3- by 36- by 96-in:	29
	6- by 10-in	(10)
	6- by 24-in	(2)

Table 4-1. Equipment required for rigging the M102 howitzer with 1 1/4-ton truck and accompanying ammunition on a type V platform for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
	8- by 24-in	(2)
	8- by 54-in	(6)
	10- by 10-in	(5)
	12- by 6-in	(1)
	12- by 12-in	(19)
	12- by 22-in	(8)
	12- by 24-in	(28)
	12- by 30-in	(1)
	12- by 54-in	(4)
	12- by 74-in	(12)
	18- by 12-in	(2)
	18- by 24-in	(2)
	20- by 6-in	(8)
	20- by 24-in	(2)
	24- by 72-in	(2)
	30- by 72-in	(4)
	36- by 12-in	(19)
	36- by 72-in	(2)
	36- by 74-in	(2)
	36- by 96-in	(2)
	42- by 10-in	(2)
	48- by 12-in	(8)
	50- by 36-in	(1)
	54- by 24-in	(8)
	74- by 24-in	(2)
	80- by 24-in	(2)
	Parachute:	
1670-01-016-7841	Cargo, G-11B	4
1670-00-040-8135	Cargo extraction, 28-ft, heavy-duty	1
	Platform, AD, type V, 32-ft:	1
	Bracket:	
1670-01-162-2375	Inside EFTA	(1)
1670-01-162-2374	Outside EFTA	(1)
1670-01-162-2372	Clevis assembly	(48)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-247-2389	Suspension link	(8)
1670-01-162-2381	Tandem link	(2)

Table 4-1. Equipment required for rigging the M102 howitzer with 1 1/4-ton truck and accompanying ammunition on a type V platform for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
5530-00-128-4981	Plywood, 3/4-in:	
	8- by 54-in	2
	10- by 10-in	2
	12- by 54-in	2
	20- by 6-in	4
	36- by 12-in	1
	48- by 96-in	1
	54- by 24-in	2
1670-01-097-8817	Release, cargo parachute, M-2	1
	Sling, cargo airdrop, type XXVI nylon webbing:	
	For deployment line:	
1670-01-062-6304	9-ft (2-loop)	1
	For lifting:	
1670-01-062-6304	9-ft (2-loop)	4
1670-01-063-7760	11-ft (2-loop)	2
1670-01-063-7761	16-ft (2-loop)	2
	For riser extension:	
1670-01-062-6311	120-ft (2-loop)	4
	For suspension:	
1670-01-062-6309	3-ft (4-loop)	6
1670-00-432-2507	16-ft (4-loop)	2
1670-01-062-6302	20-ft (2-loop)	2
1670-00-432-2511	20-ft (4-loop)	2
	Strap:	
1670-00-040-8219	Parachute release, multicut comes w 3 knives	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	69
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
	Nylon:	
	Tubular:	
8305-00-082-5752	1/2-in or	As required
8305-00-268-2453	1/2-in	As required
8305-00-268-2455	1-in	As required
8305-00-263-3591	Type VIII	As required