

## CHAPTER 4

### RIGGING M151 TRUCK WITH AN/VSC-2 RADIO SET ON 12-FOOT MODULAR PLATFORM

#### 4-1. Description of Load

The M151, 1/4-ton truck with AN/VSC-2 radio set (figure 4-1) is rigged on a 12-foot type II modular platform with two G-11A or one G-11B cargo parachute and other items of airdrop equipment. The unrigged truck, with radio equipment, weighs

3,230 pounds. It is 133 inches long, 64 inches wide, and 71 inches high (reducible to 58 inches). An accompanying load cannot be rigged as part of this load. Prepare the truck as shown in chapter 2 except as noted herein.

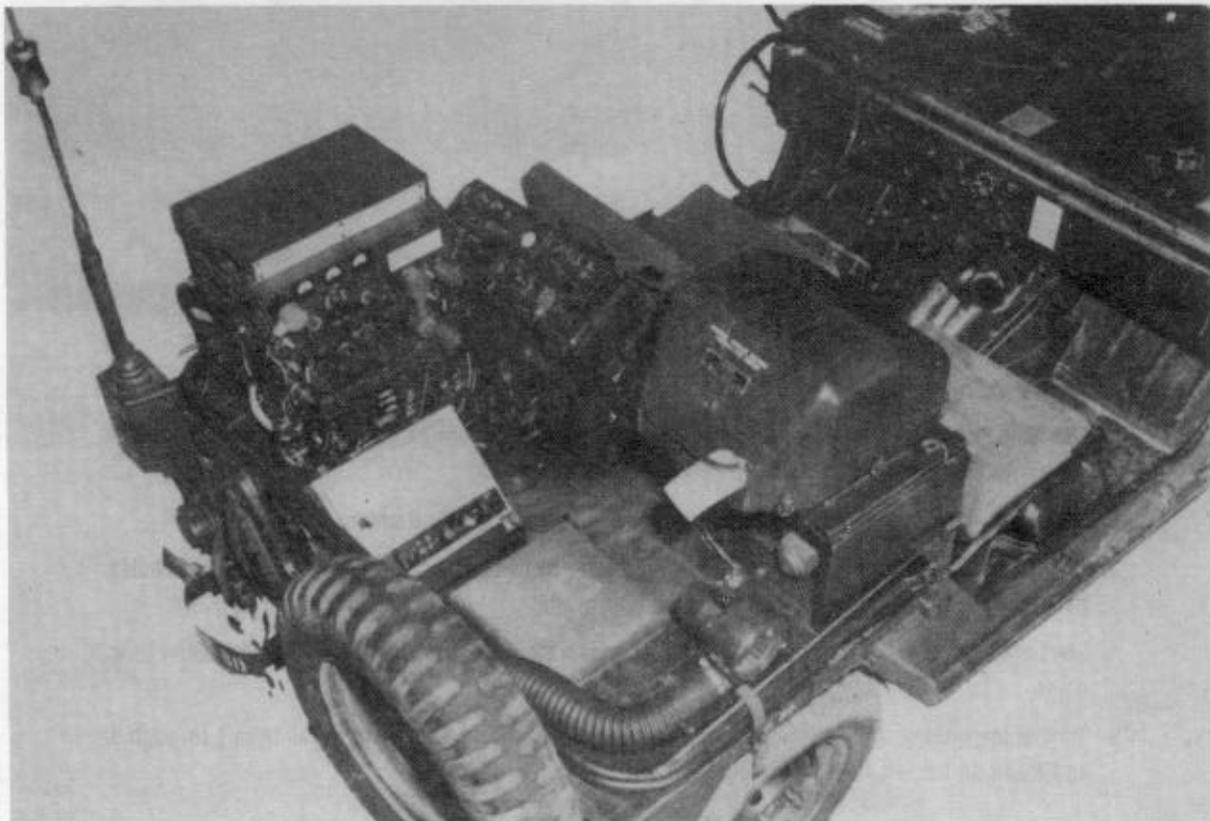


Figure 4-1. M151 truck with AN/VSC-2 radio set.

#### 4-2. Preparing Platform

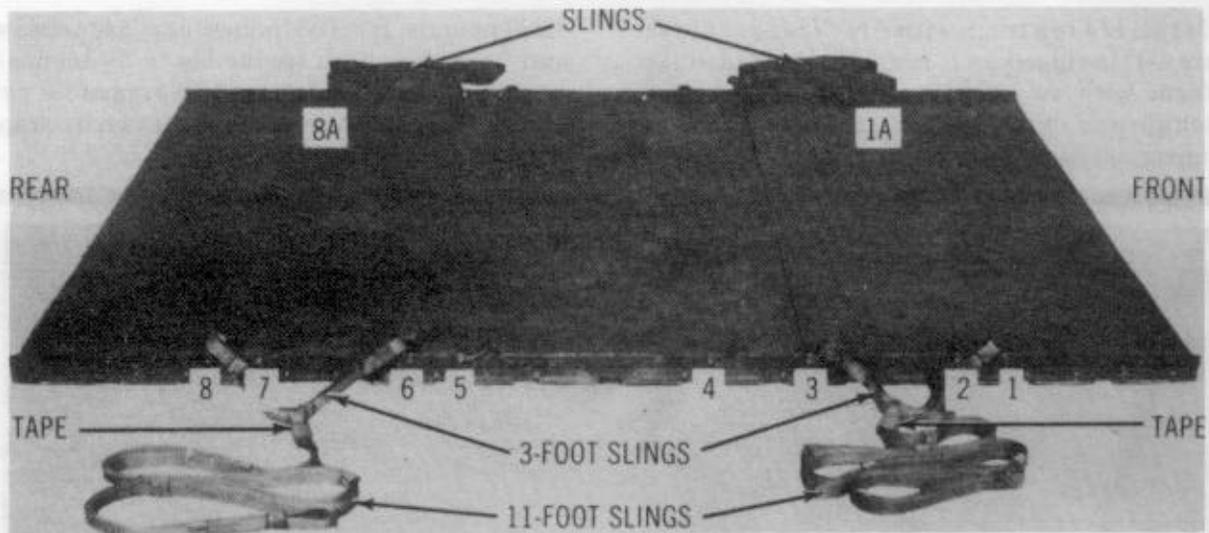
Prepare a 12-foot modular platform as follows:

*a. Inspecting Platform.* Inspect, or assemble and inspect, the platform according to procedures outlined in TM 10-1670-208-20&P/TO 13C3-4-12.

*b. Attaching Suspension Slings.* Attach four

3-foot and four 11-foot slings as shown in figure 4-2.

*c. Attaching and Numbering Clevises.* Attach and number the load tiedown clevises as shown in figure 4-2.



#### STEPS:

1. Use four 3-foot and four 11-foot slings, and pass each 3-foot sling through the loop of an 11-foot sling. Place a tiedown clevis on each end of the 3-foot slings.
2. Center the 11-foot slings on the 3-foot slings, and tape the slings in place.
3. Bolt the clevises to the 5th and 9th clevis holes for the front slings and the 17th and 21st clevis holes for the rear slings.
4. Start at the front of each rail, and bolt a load tiedown clevis to the 6th, 11th, 16th, and 20th clevis holes.
5. Start at the front of the platform, and number the clevises bolted to the right rail from 1 through 8 and those on the left rail from 1A through 8A.

**Note:** Type X (3-loop) or type XXVI (2-loop) nylon webbing slings may be used. However, all slings **MUST** be made from the same type of material.

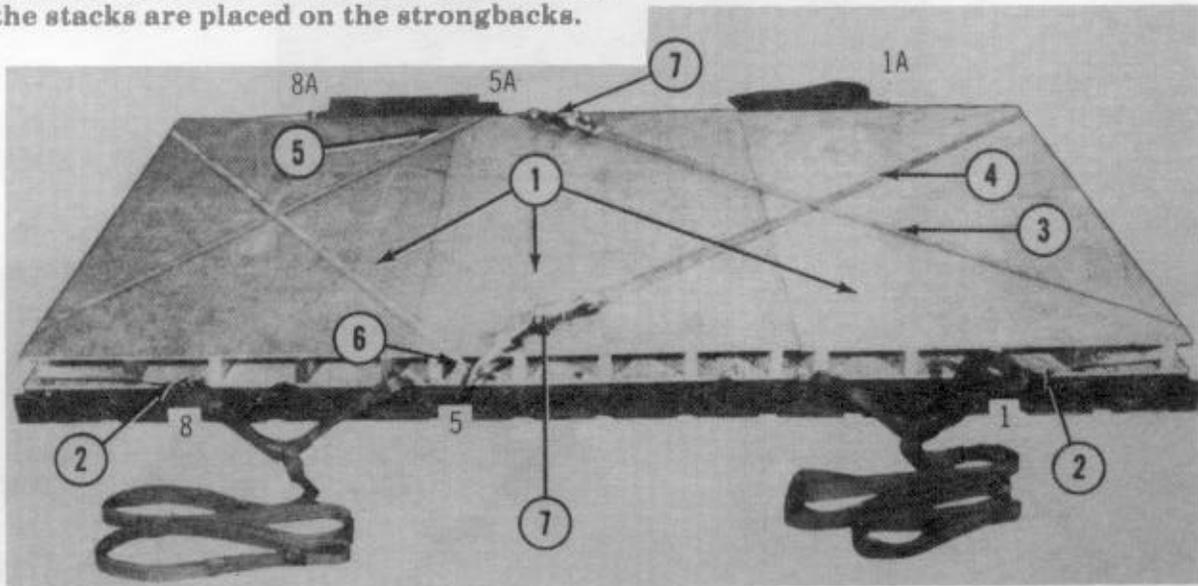
Figure 4-2. Platform prepared.

### 4-3. Building and Placing Strongbacks

Build three strongbacks, as outlined in TM 10-1670-208-20&P/TO 13C3-4-12 with two 1/2-by 48-by 96-inch pieces of plywood and five 2-by

4-by 96-inch pieces of lumber for each strongback. Place and secure the three strongbacks as shown in figure 4-3.

**CAUTION:** Position the load binders so they will not touch the honeycomb stacks when the stacks are placed on the strongbacks.



- ① Place one strongback on each of the three platform panels.
- ② Attach a 15-foot tiedown strap to clevises 1, 1A, 8, and 8A by passing the free end of the strap around the clevis and through its own D-ring. Pull the strap taut.
- ③ Pass the strap from clevis 1 over the front edge of the strongback and rearward across the top of the strongbacks. Run the strap toward clevis 5A.
- ④ Pass the strap from clevis 1A over the front edge of the strongback and rearward across the top of the strongbacks. Run the strap toward clevis 5.
- ⑤ Pass the strap from clevis 8 around the rear edge of the strongback and forward through clevis 5A.
- ⑥ Pass the strap from clevis 8A around the rear edge of the strongback and forward through clevis 5.
- ⑦ Secure the ends of the straps together with four D-rings and two load binders according to FM 10-500/TO 13C7-1-5.

Figure 4-3. Strongbacks positioned and secured.

**4-4. Building and Placing Honeycomb Stacks**

Build the honeycomb stacks, and place them on the platform as shown in figure 4-4.

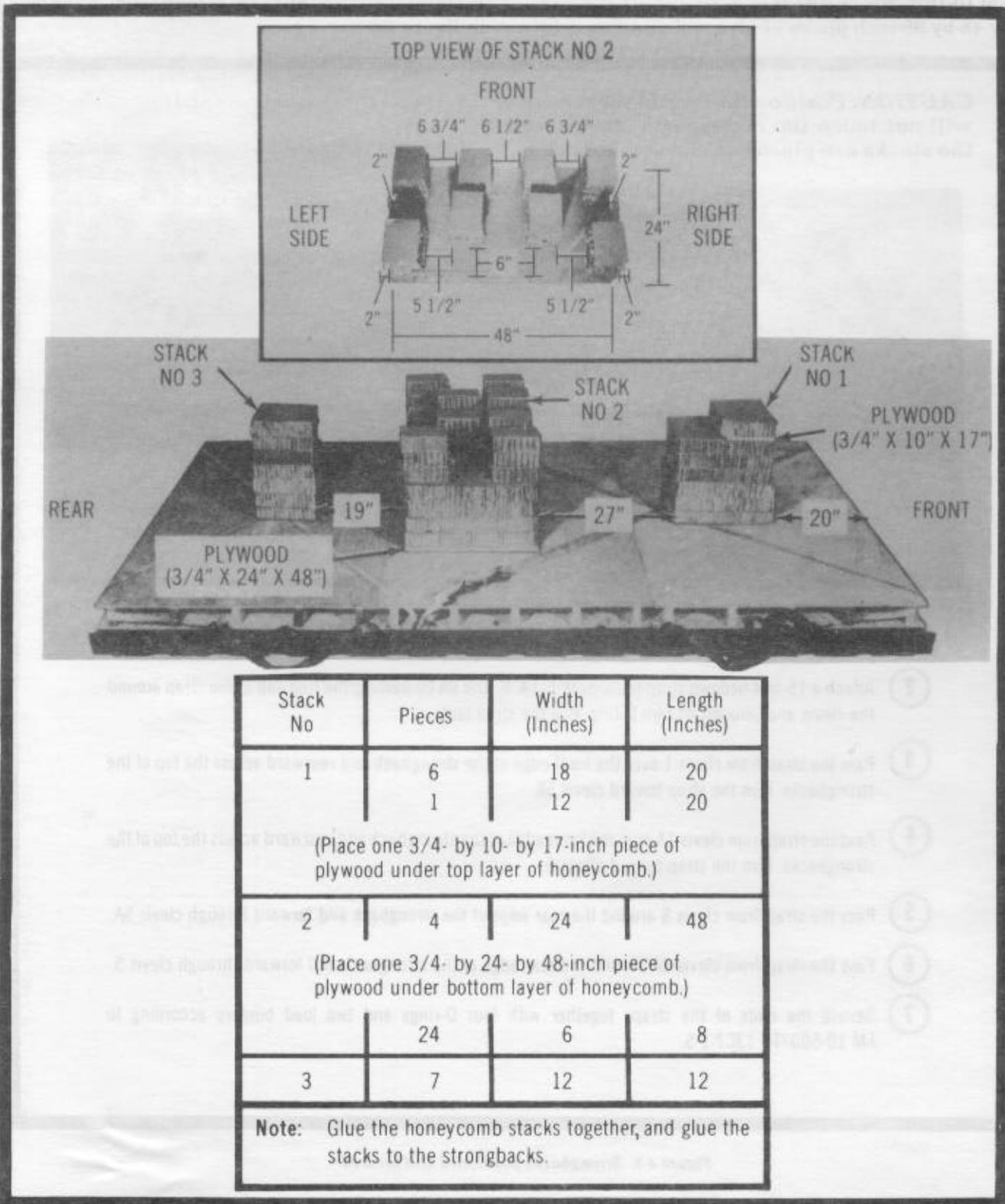


Figure 4-4. Honeycomb stacks positioned.

#### 4-5. Preparing Truck

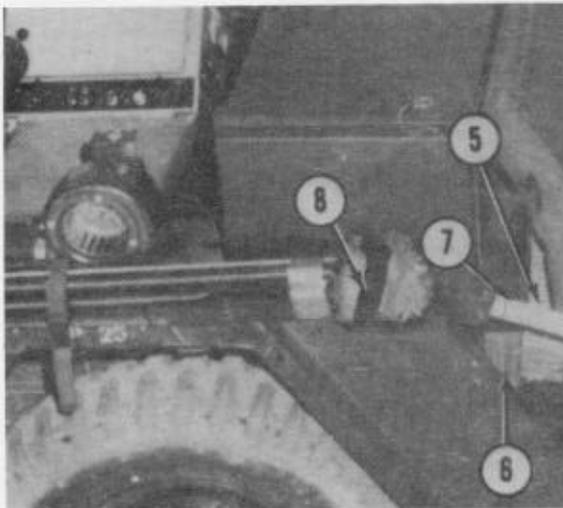
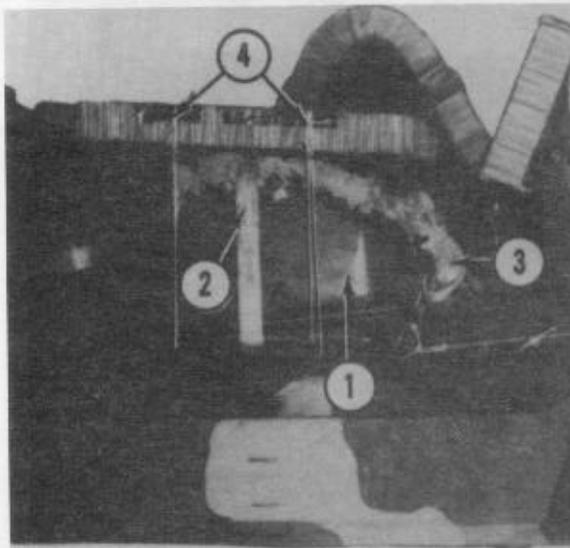
Prepare the truck as outlined in chapter 2 with the following exceptions:

- a. *Stowing Teletypewriter Set.* Stow the teletypewriter as shown in figure 4-5.
- b. *Stowing Accessory Kits.* Stow the accessory kits as shown in figure 4-5.
- c. *Stowing Water and Gasoline Cans.* Stow the water and gasoline cans as shown in figure 4-6.
- d. *Securing Blower.* Secure the blower as shown in figure 4-6.

e. *Securing the MODEM MD522 Radio Teletypewriter Set, Antenna, and AN/GRC-106.* Secure the MODEM MD522 radio teletypewriter set, antenna, and AN/GRC-106 as shown in figures 4-6 and 4-7.

f. *Stowing Components.* Stow the items removed from the truck (such as doors and top) as shown in figure 4-8.

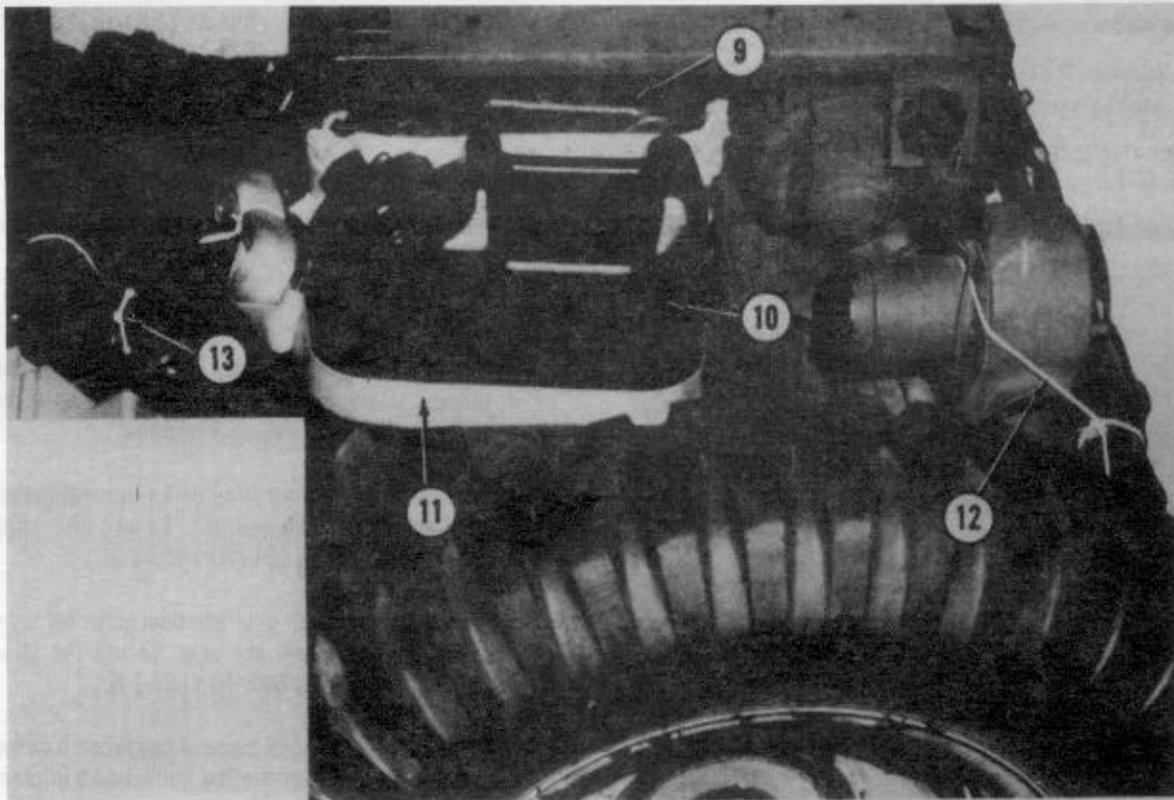
g. *Stowing Windshield and Placing and Securing Honeycomb.* Stow the windshield, and place and secure the honeycomb as shown in figure 4-8.



- 1 Remove the teletypewriter from its mount, and place it in the passenger seat. Cover the top of the teletypewriter with cellulose wadding.
- 2 Pass a 15-foot tiedown strap under the seat braces and over the teletypewriter. Secure the strap according to FM 10-500/TO 13C7-1-5.
- 3 Pass a second strap over the teletypewriter, over the back, and under the seat. Secure the strap according to FM 10-500/TO 13C7-1-5.
- 4 Place a 24- by 24-inch piece of honeycomb on top of the teletypewriter. Tie the honeycomb in place with type III nylon cord.
- 5 Place a 12- by 18-inch piece of honeycomb behind the passenger seat.
- 6 Place a 6- by 10-inch piece of honeycomb on the floor behind the passenger seat.
- 7 Place the two accessory kits, one on top of the other, on the 6- by 10-inch honeycomb.
- 8 Fold and secure the top frame as described in chapter 2. Pad the sharp edges with cellulose wadding, and tape it in place.

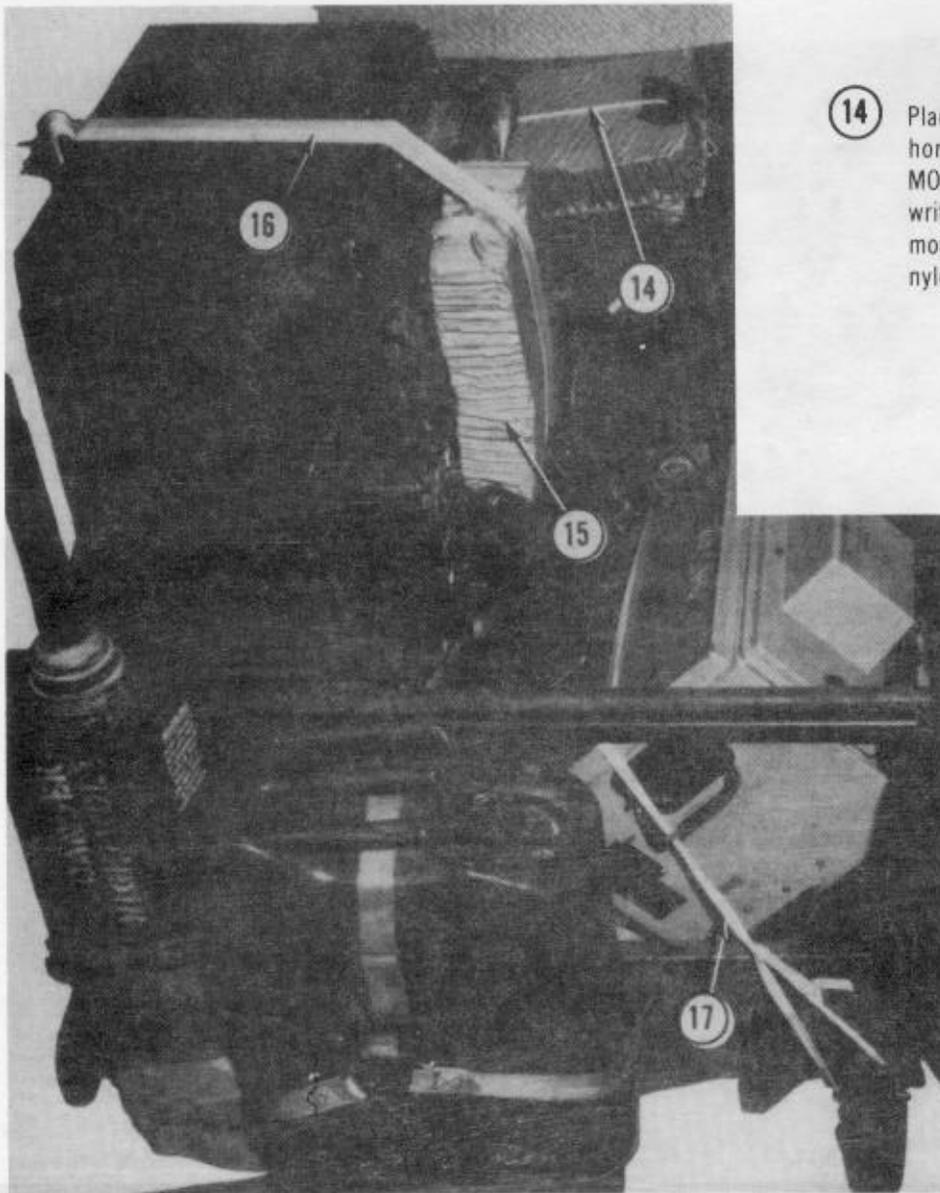
Figure 4-5. Teletypewriter stowed.

**CAUTION:** Package, mark, and label gasoline cans according to AFR 71-4/TM 38-250.



- 9 Fill a gasoline can according to FM 10-500/TO 13C7-1-5. Pad the can with cellulose wadding. Place the can in the truck against the accessory kits.
- 10 Fill the water can with water, and place it in the truck against the gasoline can.
- 11 Pass a 15-foot tiedown strap around the passenger seat and around the cans. Secure the strap according to FM 10-500/TO 13C7-1-5.
- 12 Tie the blower in place with type III nylon cord.
- 13 Stow the antenna in its carrying case, and place the carrying case between the seats. Tie the case in place with type III nylon cord.

Figure 4-6. Gasoline can, water can, and antenna stowed.



- ①④ Place a 6- by 18-inch piece of honeycomb on top of the MODEM MD522 radio teletypewriter set. Tie the set to its mount with 1/2-inch tubular nylon webbing.

- ①⑤ Place an 8- by 12-inch piece of honeycomb on the front of the AN/GRC-106 radio set.
- ①⑥ Pass a 15-foot tiedown strap over the AN/GRC-106 radio set, under the radio mount, and over the honeycomb. Secure the strap according to FM 10-500/TO 13C7-1-5.
- ①⑦ Place the Confidential Crypto TSEC/KW-7 radio set in the back of the truck. Pass a length of 1/2-inch tubular nylon webbing over the set and through the carrying handles. Tie one end of the webbing to the passenger seat and the other end to the towing pintle.

Figure 4-7. Radio sets secured.



- 18 Fold the top cover into an 18- by 60-inch rectangle. Place the folded cover on the hood of the truck.
- 19 Place and secure the honeycomb on the hood of the truck according to chapter 2.

- Notes:**
- a. If the doors and side curtains are to be dropped with the truck, place these items on the hood before placing and securing the honeycomb.
  - b. If the windshield, top cover, doors, and side curtains are not rigged as part of this load, delete step 18 and refer back to chapter 2.

Figure 4-8. Front of vehicle prepared.

#### 4-6. Positioning Truck

a. Fit four small suspension clevises on one end of four 9-foot (2-loop) type X or type XXVI nylon webbing suspension slings (lifting slings). Bolt one of the clevises to each wheel suspension point.

b. Lift the truck by the four 9-foot slings, and position the truck on the honeycomb stacks with the rear of the truck even with the front edge of the platform.

c. Crush the honeycomb where it is necessary to make sure that the truck rests evenly on the stacks.

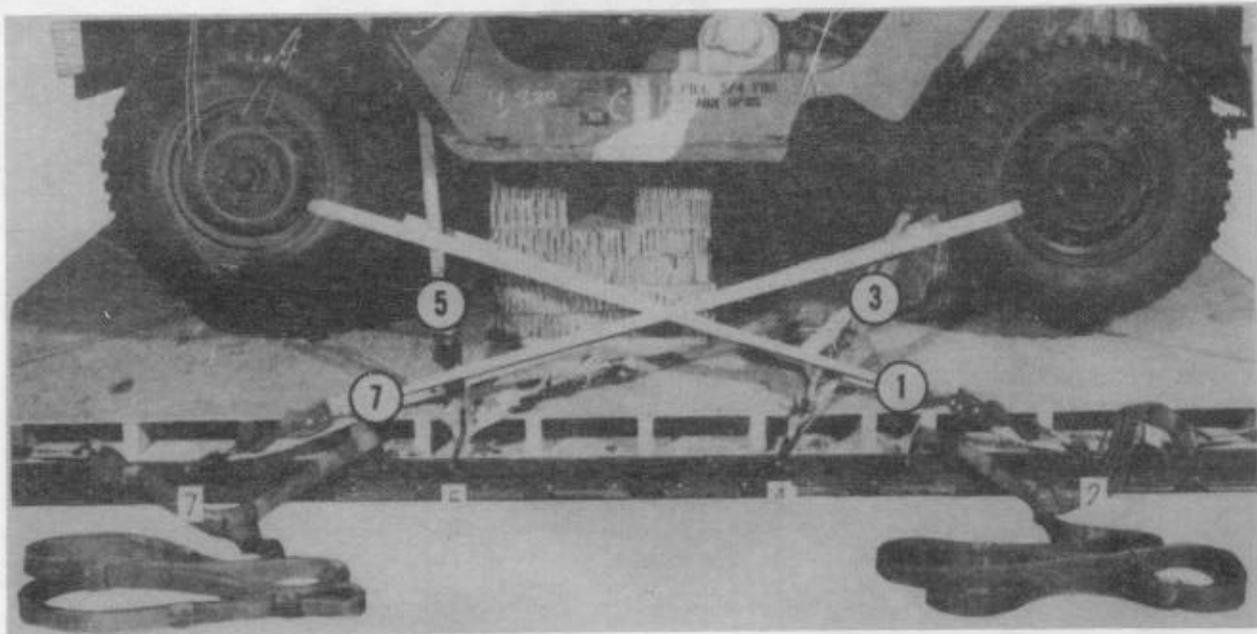
d. Place the gearshift lever in the neutral position, and release the brakes.

e. Remove the four lifting slings from the truck.

#### 4-7. Installing Lashings

Use eight 15-foot tiedown straps, eight D-rings, and eight load binders, and lash the truck to the platform as shown in figure 4-9.

**CAUTION:** Make sure the lashings are not so tight that they cause the platform to bow.



Lashing No	Clevis No	Instructions
1	2	Through the left front wheel
2	2A	Through the right front wheel
3	4	Around the left inside suspension arm
4	4A	Around the right inside suspension arm
5	5	Around the left mainframe
6	5A	Around the right mainframe
7	7	Through the left rear wheel
8	7A	Through the right rear wheel

**Note:** Pad all sharp edges that may come in contact with the lashings. Fold the excess tiedown strap, and tape the folds to its load binder or tie the folds with 80-pound cotton webbing.

Figure 4-9. Truck lashed to platform.

#### 4-8. Safeying Suspension Slings

Safety the suspension slings as shown in figure 4-10.

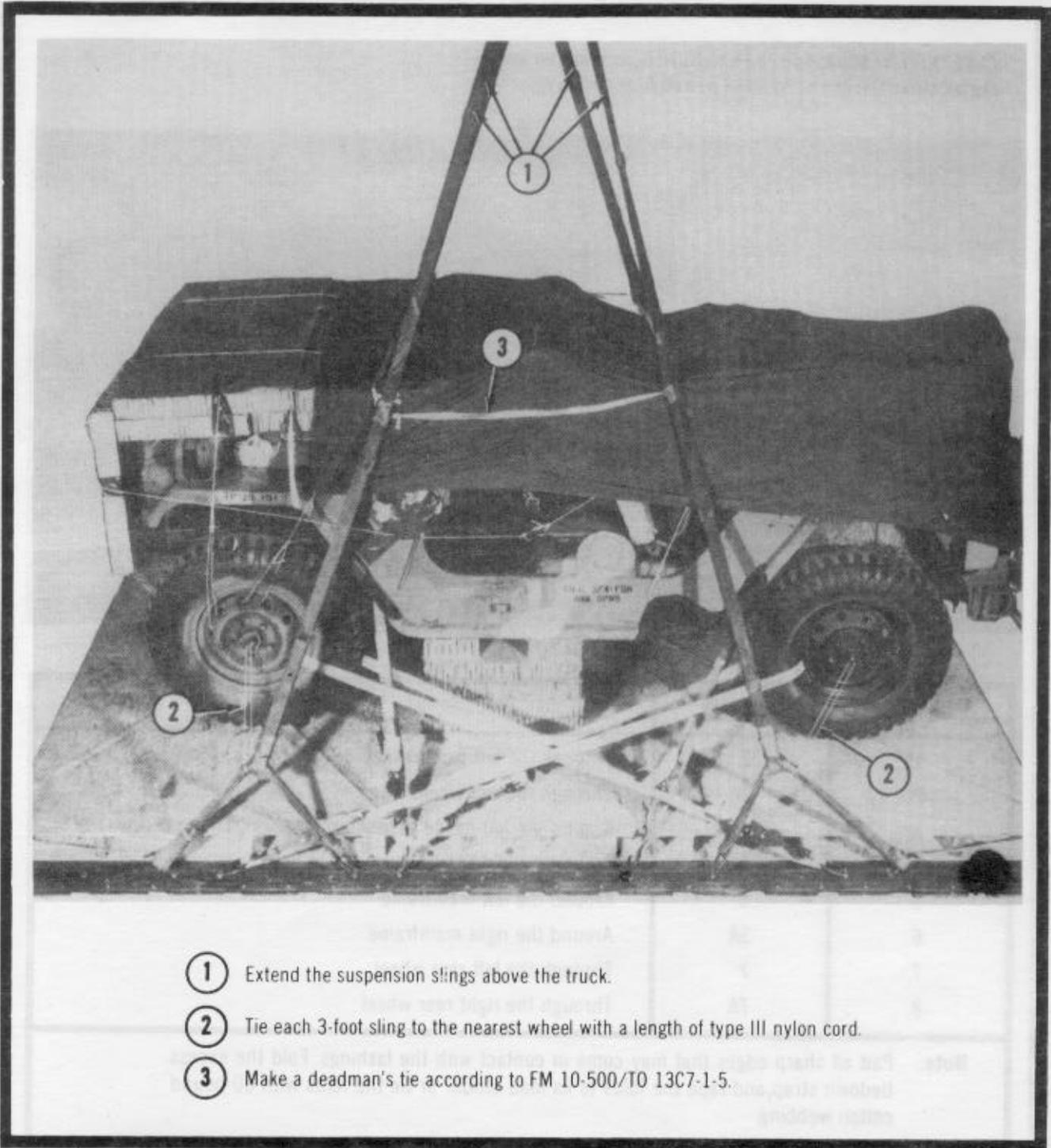


Figure 4-10. Suspension slings safetied.

#### 4-9. Stowing Cargo Parachutes

Stow either the G-11A or the G-11B cargo parachutes as follows:

a. *Stowing G-11A Cargo Parachutes.* Stow two G-11A cargo parachutes as shown in figure 4-11.

b. *Stowing G-11B Cargo Parachute.* Stow one G-11B cargo parachute according to FM 10-500/TO 13C7-1-5.

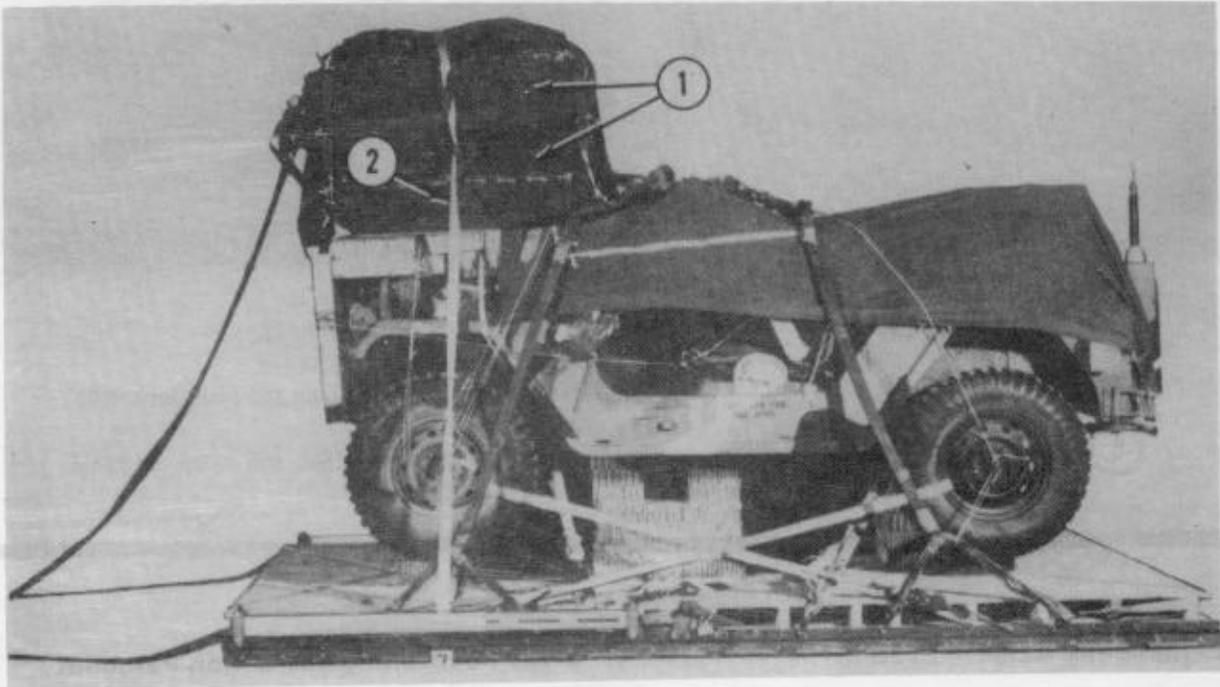
#### 4-10. Installing Extraction System

Two extraction systems are now authorized for

use when this load is rigged. These systems are the extraction force transfer coupling (platform) (PEFTC) and the static line/connector strap extraction system (SL/CS). Install one extraction system as follows:

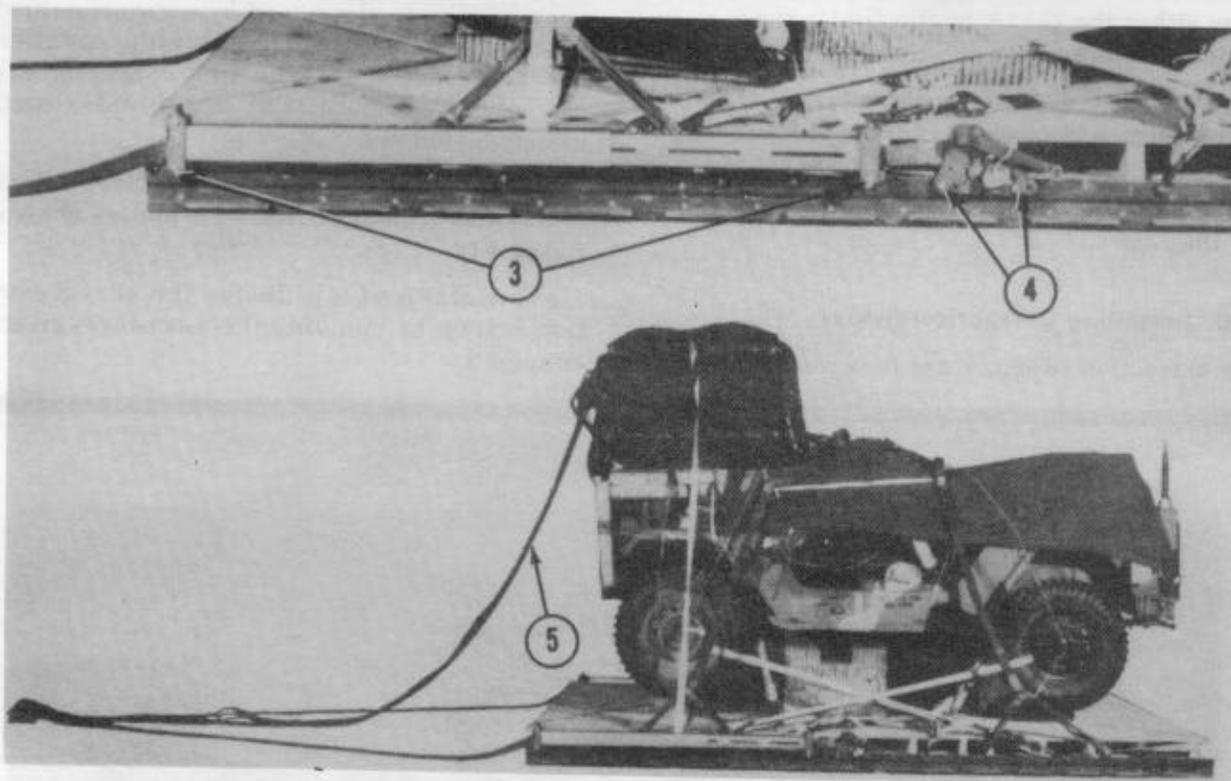
a. *Installing PEFTC.* Install the PEFTC according to FM 10-500/TO 13C7-1-5 and as shown in figure 4-12.

b. *Installing SL/CS.* Install the SL/CS extraction system by adapting the procedures given in chapter 2.



- 1 Prepare and stow two G-11A cargo parachutes according to FM 10-500/TO 13C7-1-5.
- 2 Install a 10-yard length of type VIII nylon webbing restraint strap to clevises 7 and 7A according to FM 10-500/TO 13C7-1-5.

Figure 4-11. Parachutes stowed.



- ③ Bolt the support brackets to the 15th and 25th clevis holes in each platform rail.
- ④ Use the B mounting holes in the actuators, and bolt the actuators to the 13th and 14th clevis holes.
- ⑤ Use a 16-foot (3-loop) sling as a deployment line. Use four guidance tubes, and install the PEFTC according to FM 10-500/TO 13C7-1-5.

Figure 4-12. PEFTC installed.

#### 4-11. Installing Release System

Prepare and install an M-1 cargo parachute release assembly according to FM 10-500/TO 13C7-1-5. Place the release assembly on top of the load. Safety the release assembly according to FM 10-500/TO 13C7-1-5. Make one tie to the front wheels and the other tie to the rear wheels. If the M-1 cargo parachute release assembly is not available, prepare and install two 5,000-pound-capacity cargo parachute release assemblies according to FM 10-500/TO 13C7-1-5. Place the release assemblies on top of the load, and safety them according to FM 10-500/TO 13C7-1-5.

**Note:** The 5,000-pound-capacity release assemblies **MUST NOT** be used when a G-11B cargo parachute is rigged as part of this load.

#### 4-12. Positioning Extraction Parachute

a. *C-130 Aircraft.* Place a reefed 15-foot cargo extraction parachute on the load for installation in the aircraft.

b. *C-141B Aircraft.* Place a reefed 15-foot cargo extraction parachute with an adapter web and a continuous 160-foot (1-loop) type XXVI nylon extraction line on the load for installation in the aircraft.

**Note:** The extraction line will be a continuous 160-foot (1-loop) type XXVI nylon webbing extraction line. Shorter lines will not be used to form the 160-foot extraction line.

#### 4-13. Marking Rigged Load

Mark the rigged load according to FM 10-500/TO 13C7-1-5 and as shown in figure 4-13. If the load varies, the weight, height, center of balance, and parachute requirements must be computed.

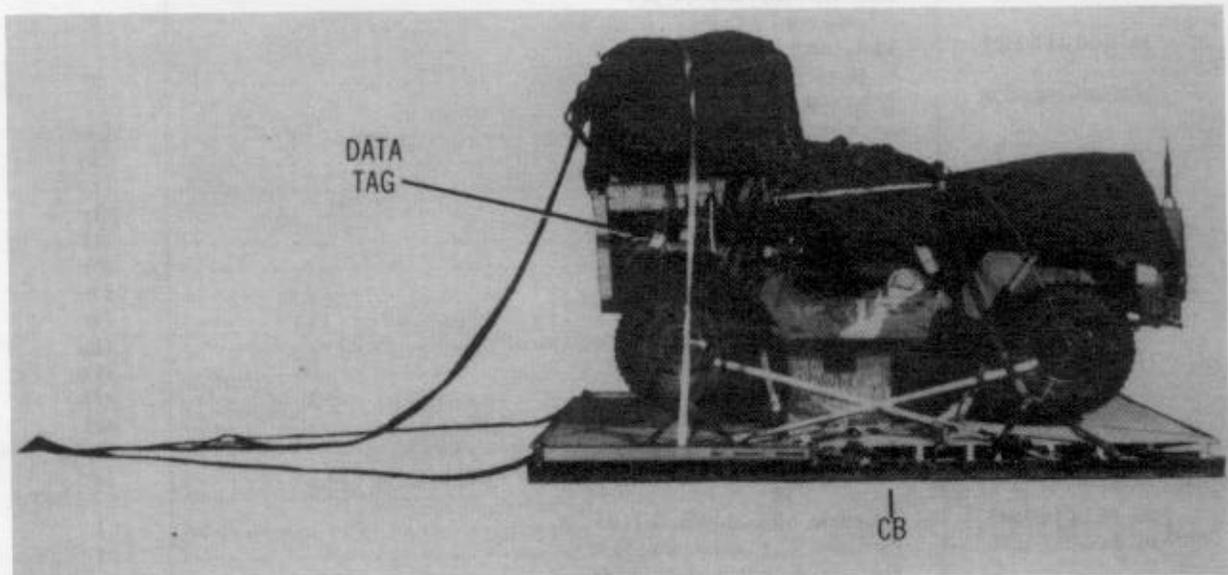
**Note:** When this load is rigged for airdrop on a drop zone with ground elevation of 6,000 to

10,000 feet, no additional honeycomb is needed.

#### 4-14. Equipment Required

The equipment required for rigging this load is listed in table 4-1.

**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.....	4,820 pounds
Height.....	98 inches
Width.....	108 inches
Length.....	144 inches
Center of Balance (from front edge of platform) .....	77 inches
Extraction System (shown) .....	PEFTC

Figure 4-13. Truck with AN/VSC-2 radio set rigged for low-velocity airdrop.

Table 4-1. Equipment required for rigging 1/4-ton truck with AN/VSC-2 radio set for low-velocity airdrop.

National Stock No	Item	Quantity
1670-00-040-8215	Adapter Web, 36-in (for C-141B aircraft)	1
8040-00-273-8713	Adhesive, paste, 1-gal.	As required
1377-00-958-1048	*Cartridge, time-delay, 20-second (for use w/5,000-lb release)	1
1670-00-090-5354	Clevis Assembly, suspension, large	1
8305-00-242-3593	Cloth, cotton duck, 60-in	3 yd
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-168-6068	**Coupling, extraction force transfer (platform)	1
1670-00-360-0328	Cover, clevis, large	1
1670-00-360-0329	Cover, link (add one for C-141)	1
8135-00-664-6958	Cushioning Material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt Sheet, 1/2-by 6-by 6-in	1
1670-00-856-0265	Line, extraction, 60-ft (1-loop)	1
1670-01-107-7652	Line, extraction, 160-ft (1-loop)	1
1670-00-783-5988	Link Assembly, single, type IV (add one for C-141)	1
1670-00-217-2421	Link, connector, L-bar type (for C-141)	2
1670-00-753-3928	Pad, energy-dissipating honeycomb, 3-by 36-by 96-in:	5 sheets
	6-by 8-in.	(24)
	6-by 10-in.	(1)
	6-by 18-in.	(1)
	8-by 12-in.	(1)
	12-by 12-in.	(6)
	12-by 18-in.	(2)
	12-by 20-in.	(1)
	12-by 61-in.	(1)
	18-by 20-in.	(5)
	18-by 61-in.	(3)
	24-by 61-in.	(2)
	36-by 47-in.	(1)
1670-00-269-1107	Parachute, cargo, 100-ft, G-11A. OR	2
1670-01-016-7841	Parachute, cargo, 100-ft, G-11B.	1
***1670-00-052-1548	Parachute, cargo extraction, 15-ft.	1
	Platform, airdrop, modular, 12-ft:	
1670-00-893-1631	Clevis, load tiedown	16
1670-00-893-1624	Panel	3
1670-00-893-1626	Rail, platform side, 12-ft.	2
5320-00-893-1632	Rivet, blind-drive type, 1/4-in diam.	48
5530-00-128-4981	Plywood, 3/4-by 48-by 96-in:	1 sheet
	3/4-by 10-by 17-in	(1)
	3/4-by 24-by 48-in	(1)
1670-00-168-6070	Release, cargo parachute, M-1 or	1
1670-00-799-8494	*Release, 5,000-lb cap cargo parachute	1 or 2
	Slings, cargo, airdrop: for 5,000-lb releases:	
1670-00-753-3788	3-ft (3-loop) type X or	1 or 2
1670-01-062-6301	3-ft (2-loop) type XXVI	1 or 2
1670-00-753-3790	Lifting:	
1670-00-753-3631	9-ft (2-loop) type X or	2
1670-01-062-6304	9-ft (2-loop) type XXVI	2

Table 4-1. Continued

National Stock No	Item	Quantity
	<b>Platform Suspension:</b>	
1670-00-753-3788	3-ft (3-loop) type X or . . . . .	4
1670-01-062-6301	3-ft (2-loop) type XXVI . . . . .	4
1670-00-823-5040	11-ft (3-loop) type X or . . . . .	4
1670-01-063-7760	11-ft (2-loop) type XXVI . . . . .	4
	<b>Deployment Line:</b>	
1670-00-823-5042	16-ft (3-loop) type X or . . . . .	1
1670-01-063-7761	16-ft (2-loop) type XXVI . . . . .	1
	<b>Riser Extension:</b>	
1670-00-753-3794	20-ft (2-loop) type X or . . . . .	0 or 2
1670-00-823-5043	20-ft (3-loop) type X or . . . . .	0 or 2
1670-01-062-6302	20-ft (2-loop) type XXVI . . . . .	0 or 2
5510-00-197-5980	<b>Strongback:</b> . . . . .	3
5510-00-220-6146	Lumber, 2- by 4- by 96-in . . . . .	(15)
5315-00-010-4657	Nail, wire, steel, common 6d . . . . .	As required
5530-00-262-8195	Plywood, 1/2- by 48- by 96-in. . . . .	(6)
7510-00-266-5016	Tape, adhesive, 2-in. . . . .	As required
1670-00-937-0271	Tiedown Assembly, 15-ft (Dacron). . . . .	15
8305-00-268-2411	Webbing, cotton, 80-lb. . . . .	As required
8305-00-082-5752	Webbing, nylon, tubular, 1/2-in. . . . .	As required

\*This item will not be used with the G-11B cargo parachute.

\*\*When this item is not available, the following items are required for the SL/CS:

1670-00-090-5354	Clevis Assembly, suspension, large . . . . .	2
1670-00-783-5988	Link Assembly, single, type IV . . . . .	1
	<b>Sling, cargo, A/D, nylon webbing:</b>	
1670-00-753-3788	3-ft (3-loop) type X or . . . . .	1
1670-01-062-6301	3-ft (2-loop) type XXVI . . . . .	1
1670-00-823-5041	12-ft (3-loop) type X or . . . . .	1
1670-01-062-6303	12-ft (2-loop) type XXVI . . . . .	1
1670-00-998-0117	<b>Static Line, cargo parachute, breakaway type, w/release knife and clevis . . . . .</b>	2
1670-00-738-5878	Strap, connector, 60-in. . . . .	1

\*\*\*Install the extraction parachute according to these types of aircraft:

1. C-130. Use the reefed 15-foot extraction parachute on loads rigged for drop from a C-130 aircraft.
2. C-141B. Use the reefed 15-foot extraction parachute on loads rigged for drop from a C-141B aircraft. In addition, the parachute needs a 36-in adapter web and a continuous 160-foot (1-loop) type XXVI nylon webbing extraction line. Do NOT use shorter lines to form the 160-foot line.