

## CHAPTER 6

### RIGGING 1 1/4-TON TRUCK WITH STINGER WEAPON SYSTEMS AND MISSILES FOR LOW-VELOCITY AIRDROP

#### 6-1. Description of Load

The M998, 1 1/4-ton truck (HMMWV), equipped with the stinger weapon system rack and loaded with six stinger weapon systems and items of truck equipment, is rigged on a 16-foot, type V platform. The load requires two G-11 parachutes. The accompanying load rigged in the truck weighs 1,180 pounds.

#### 6-2. Preparing Platform, Preparing and Positioning Honeycomb Stacks, and Preparing Truck

Prepare the platform, prepare and position the honeycomb stacks, and prepare the truck according to FM 10-517/TO 13C7-1-111.

#### 6-3. Rigging Weapon Systems and Truck Equipment in Truck

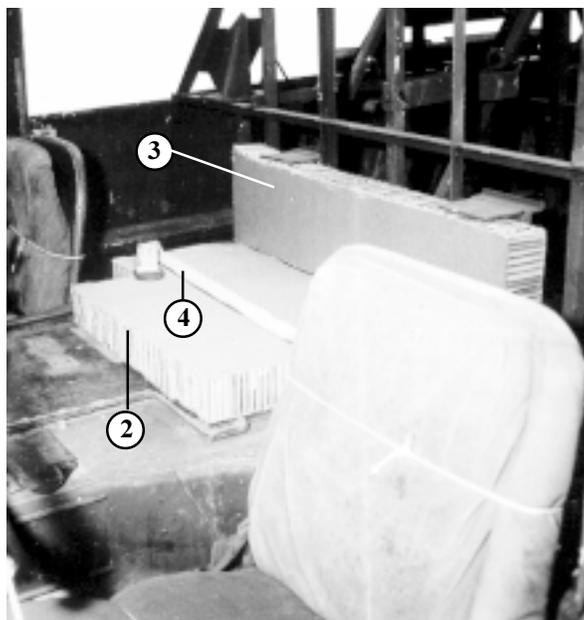
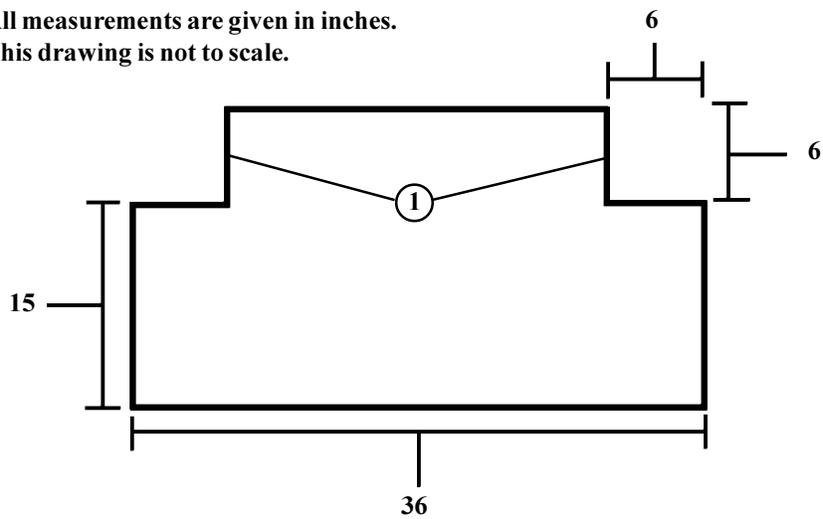
Secure the truck equipment to the truck as shown in Figure 6-1. Secure the weapon systems in their rack as shown in Figure 6-2. Secure the truck tailgate and install body side protection boards according to FM 10-517/TO 13C7-1-111.

#### 6-4. Lifting, Positioning, and Lashing the Truck

Lift, position, and lash the truck to the platform according to FM 10-517/TO 13C7-1-111.

NOTES: 1. All measurements are given in inches.

2. This drawing is not to scale.

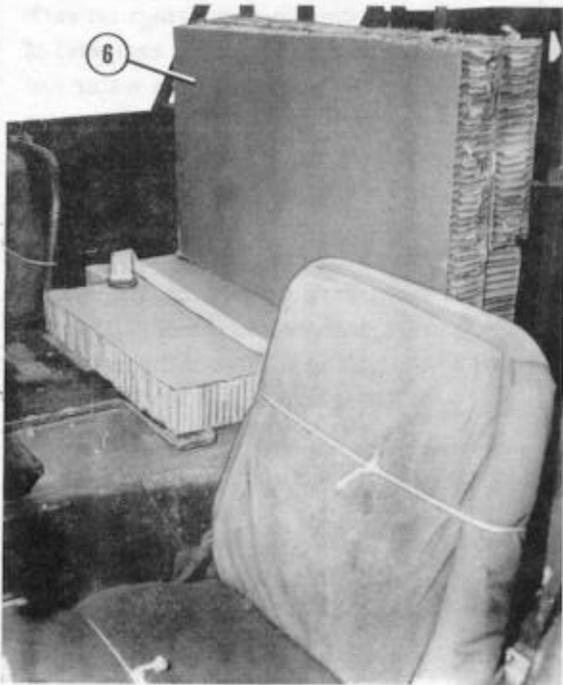


- ① Make 6- by 6-inch cutouts in a 21- by 36-inch piece of honeycomb as shown.
- ② Center the honeycomb behind the seats with the cutouts facing the front and the rear edge against the missile rack.
- ③ Place an 8- by 36-inch piece of honeycomb on top of the honeycomb placed in step 2 above and the two edges on the missile rack.
- ④ Place a 15-foot lashing on the honeycomb.

Figure 6-1. Truck equipment secured to truck

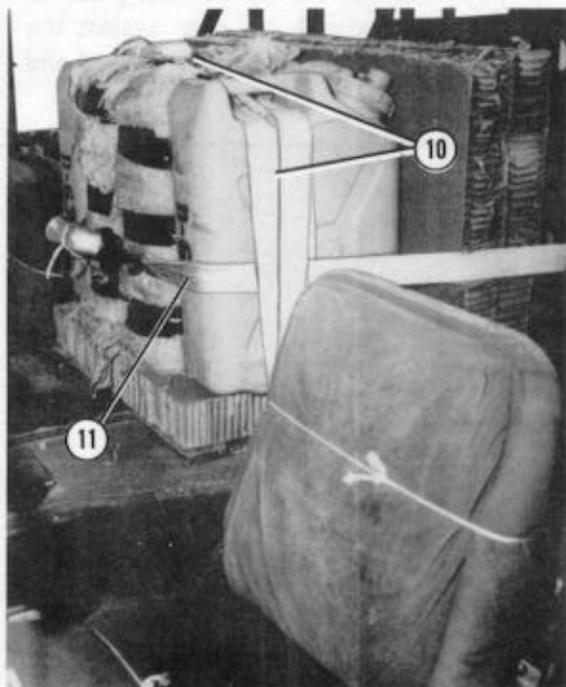
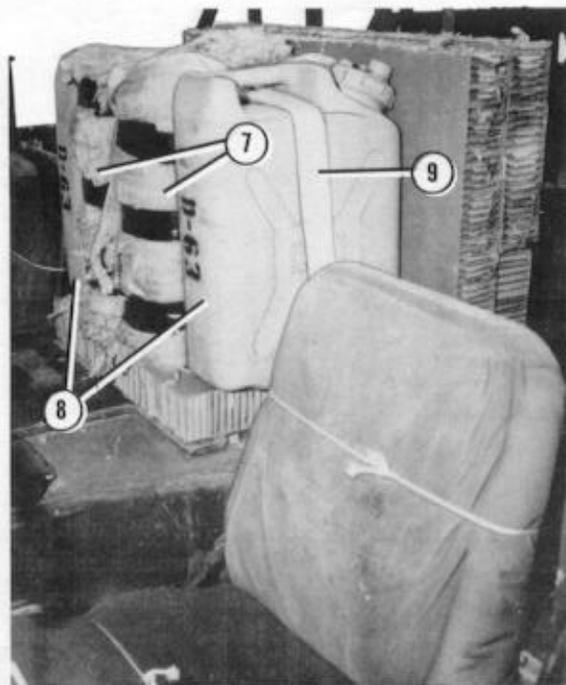


5 Place a 12- by 36-inch piece of honeycomb on edge over the honeycomb placed in step 3.



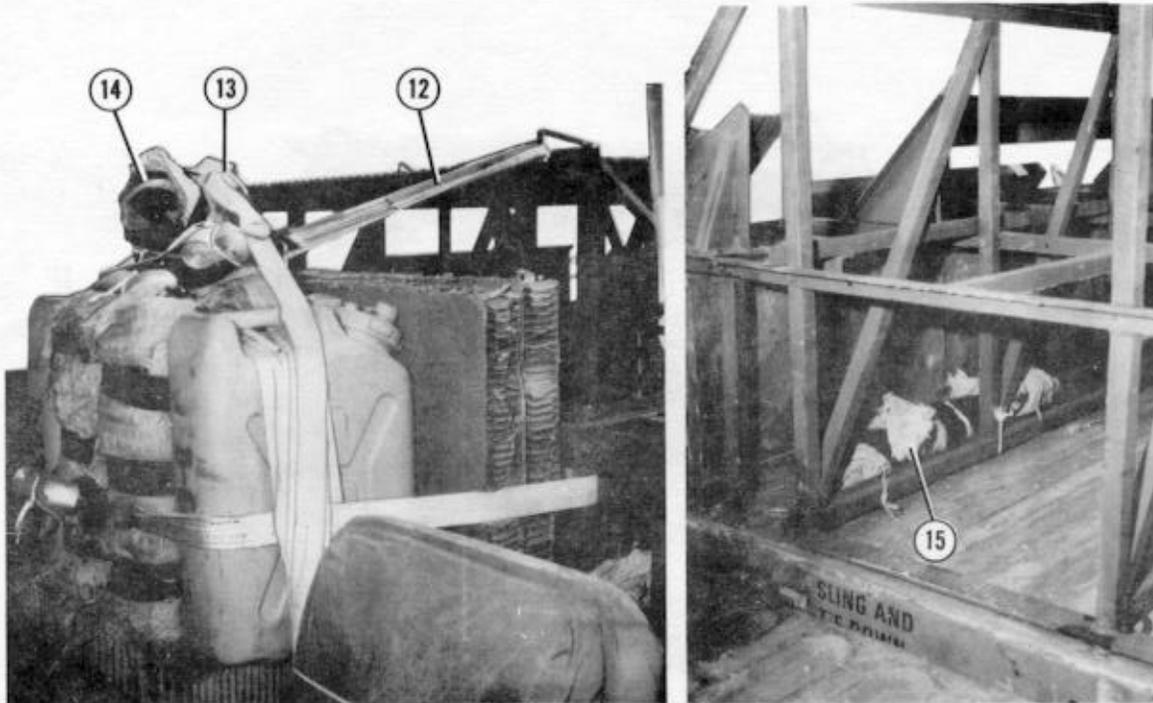
6 Place a 20- by 36-inch piece of honeycomb on edge against the honeycomb placed in steps 3 and 5.

Figure 6-1. Truck equipment secured to truck (continued)



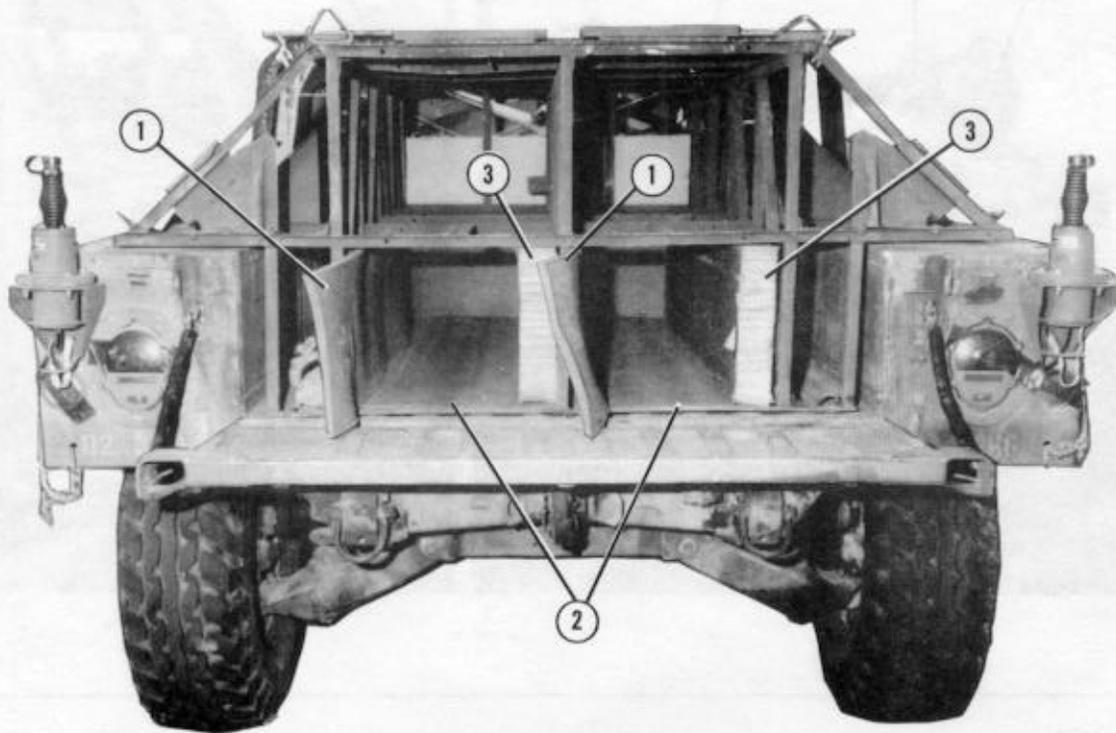
- ⑦ Pad two fuel cans with cellulose wadding taped in place. Center the cans on the honeycomb over the cargo bed.
- ⑧ Set a water can on each side of the fuel cans.
- ⑨ Pass the lashing placed in step 4 through all the can handles. Fasten the lashing on the right side with a D-ring and a load binder.
- ⑩ Pass a 15-foot lashing through all the can handles and through the cargo bed tie-down rings on each side of the cans. Pass each end of the lashing through the water can handles. Fasten the lashing over the fuel can handles with a D-ring and a load binder.
- ⑪ Pass a 15-foot lashing around the front vertical bars of the missile rack and around the cans. Fasten the lashing in front of the cans with a D-ring and a load binder.

Figure 6-1. Truck equipment secured to truck (continued)



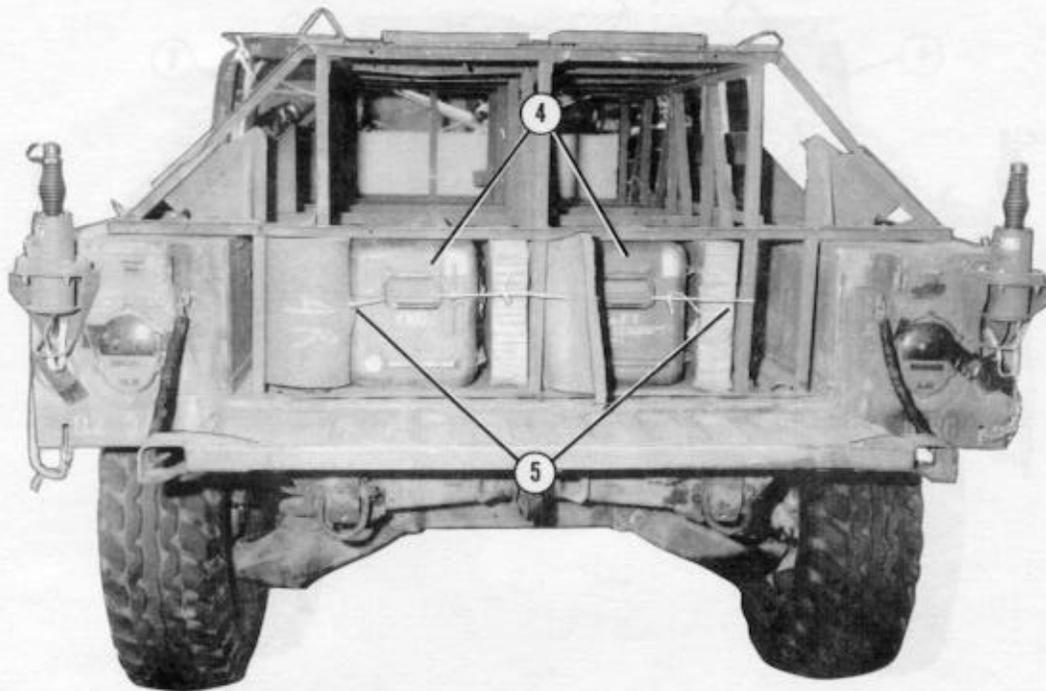
- ⑫ Pass a 15-foot lashing through the left tie-down provision on top of the rack and across the cans to the right cargo bed tie-down ring. Fasten the lashing over the cans with a D-ring and a load binder.
- ⑬ Pass a 15-foot lashing through the right tie-down provision on top of the rack and across the cans to the left cargo bed tie-down ring. Fasten the lashing over the cans with a D-ring and a load binder.
- ⑭ Remove the pioneer tools from their rack under the truck. Secure the rack with the straps provided (not shown). Pad the tools with cellulose wadding taped in place. Tie the tools to the right front vertical bar of the missile rack with 1/2-inch tubular nylon webbing.
- ⑮ Pad the radio antenna sections with cellulose wadding taped in place. Place them on the floor, and tie them to the left side of the rack with type III nylon cord.

Figure 6-1. Truck equipment secured to truck (continued)



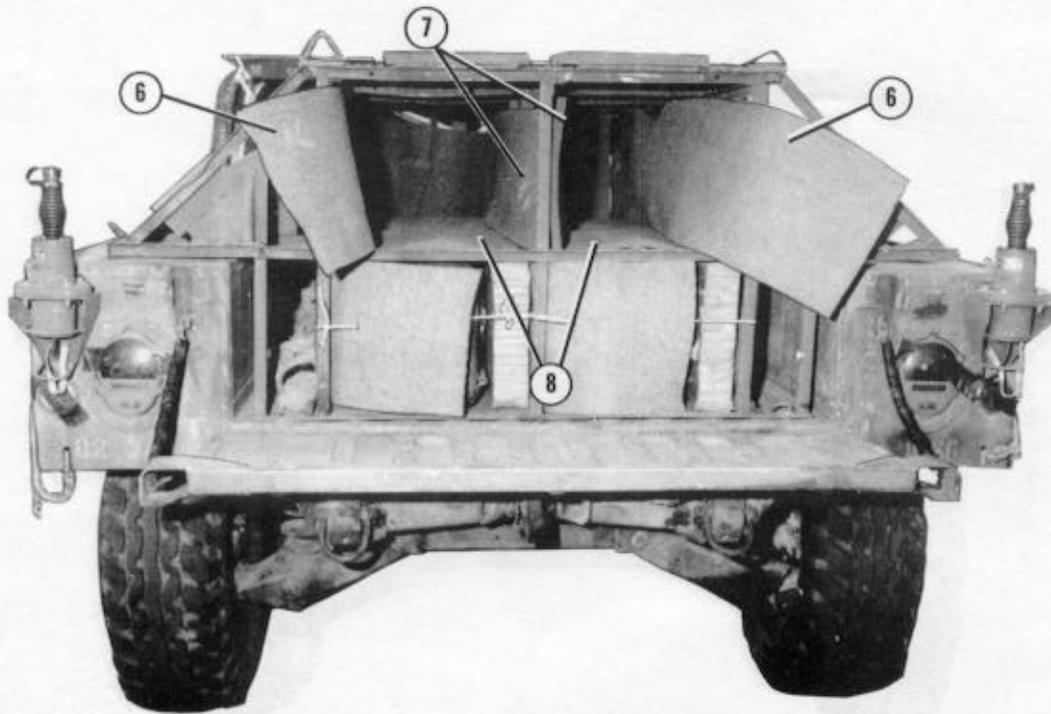
- ① Place a 13- by 100-inch piece of felt on edge against the left side of each lower rack compartment.
- ② Place one 16- by 66-inch piece of felt flat on the floor of each lower rack compartment.
- ③ Place one 13- by 66-inch piece of honeycomb on edge against the right side of each lower rack compartment.

Figure 6-2. Weapon systems secured to rack



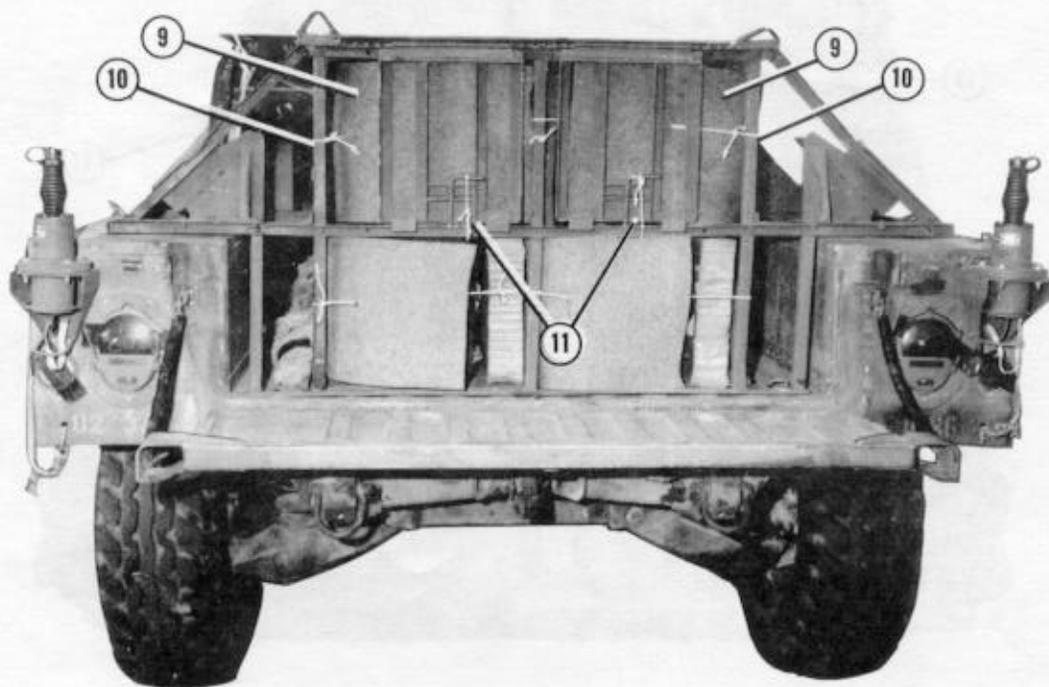
- ④ Place a weapon system case in each lower rack compartment. Be sure that enough of the felt placed in step 1 remains outside the rear of each rack compartment to cover the end of the weapon system case when folded over.
- ⑤ Secure each weapon system case to the vertical rack bars at the rear with type III nylon cord tied to the case handles. Cut a slit in the felt to allow for the ties.

*Figure 6-2. Weapon systems secured to rack (continued)*



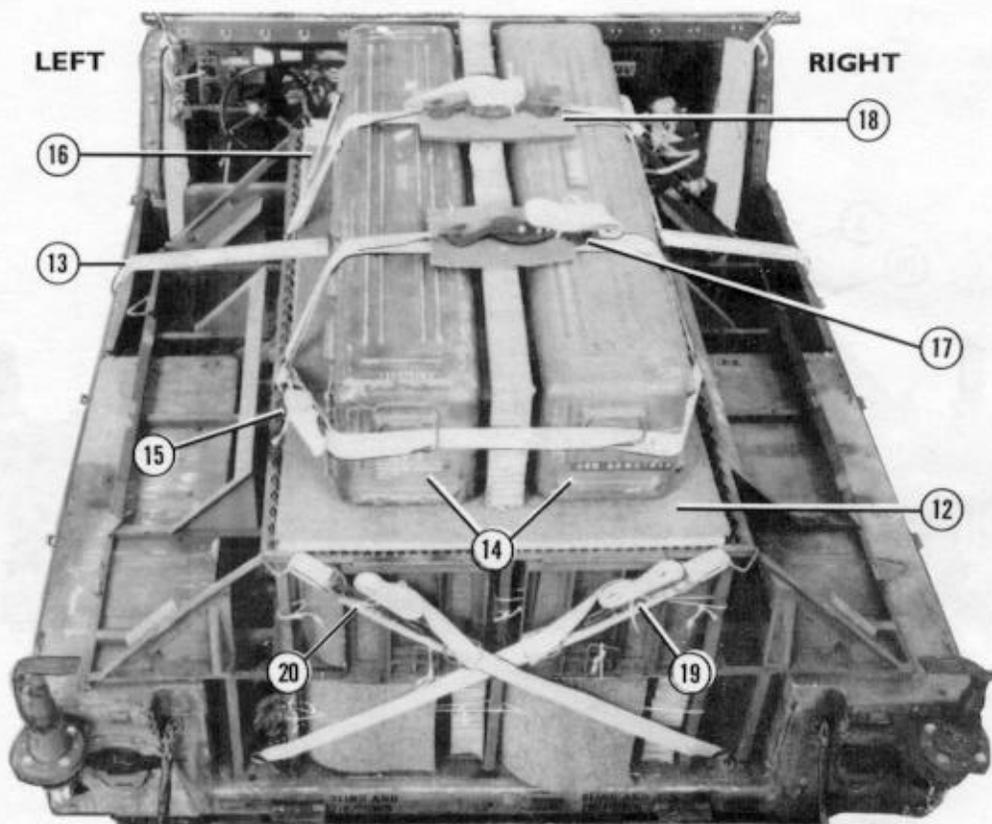
- ⑥ Place a 13- by 100-inch piece of felt on edge against the outside wall of each upper rack compartment.
- ⑦ Place a 13- by 66-inch piece of felt on edge against the inside wall of each upper rack compartment.
- ⑧ Place a 16- by 66-inch piece of felt flat on the floor of each upper rack compartment.

*Figure 6-2. Weapon systems secured to rack (continued)*



- ⑨ Place a weapon system case in each upper rack compartment. Be sure that enough of the felt placed in step 6 remains outside the rear of each rack compartment to cover the end of the weapon system case when folded over.
- ⑩ Secure each weapon system case to the vertical rack bars at the rear with type III nylon cord tied to the case handles. Cut a slit in the felt to allow for the ties.
- ⑪ Fold the felt over the weapon system cases in all four compartments. Close and latch the upper compartment doors, and secure the latches with type III nylon cord.

Figure 6-2. Weapon systems secured to rack (continued)



(12) Drill a 1/2-inch hole in each corner of a 36- by 70-inch piece of 3/4-inch plywood. Center the plywood on top of the missile rack, and tie the corners of the plywood to the rack with 1/2-inch tubular nylon webbing.

(13) Pass a 30-foot lashing over the plywood and under the vehicle. Fasten the lashing under the vehicle with two D-rings and a load binder.

**NOTE:** This lashing is to secure the cage to the vehicle upon impact.

(14) Place a 36- by 66-inch piece of felt over the lashing and plywood. Center two weapon system cases over the plywood and felt with a 13- by 66-inch piece of honeycomb placed between the cases.

(15) Pass a 15-foot lashing through the rear weapon system case handles and through the rear side tie-down provisions. Fasten the lashing on the left with a D-ring and a load binder.

Figure 6-2. Weapon systems secured to rack (continued)

- ①⑥ Pass a 15-foot lashing through the front weapon system case handles and through the front side tie-down provisions. Fasten the lashing on the right with a D-ring and a load binder.
- ①⑦ Pass a 15-foot lashing across the tops of the cases and through the rear side tie-down provisions. Fasten the lashings on top of the boxes with a D-ring and load binder. Pad under the load binder with 1/2-inch felt.
- ①⑧ Pass a 15-foot lashing across the tops of the cases and through the front side tie-down provisions. Fasten the lashings on top of the boxes with a D-ring and load binder. Pad under the load binder with 1/2-inch felt.
- ①⑨ Lash the left rear tie-down ring to the right upper tie-down provision on the rack with a 15-foot lashing. Secure with D-ring and load binder.
- ②⑩ Lash the right rear tie-down ring to the left upper tie-down provision on the rack in the same way as in step 19 above.

**NOTE:** Position the load binders on the lashings in steps 18 and 19 above so that they will not contact the tailgate when it is closed.

*Figure 6-2. Weapon system secured to rack (continued)*

#### **6-5. Installing and Safetying Suspension Slings**

Install and safety the suspension slings according to FM 10-517/TO 13C7-1-111.

#### **6-6. Installing Cargo Parachutes, Extraction System, Provisions for Emergency Restraints, Cargo Parachute Release, and Cargo Extraction Parachutes**

Finish rigging the load according to FM 10-517/TO 13C7-1-111, Chapter 2 and FM 10-500-2/TO 13C7-1-5.

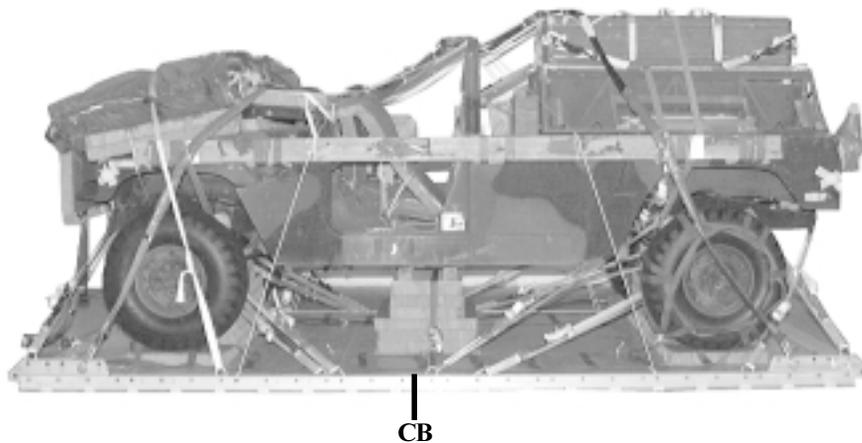
#### **6-7. Marking Rigged Load**

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 6-3.

#### **6-8. Equipment Required**

Use the equipment listed in Table 6-1 to rig six stinger weapon systems in a 1 1/4-ton HMMWV truck. Equipment for rigging the truck is listed in FM 10-517/TO 13C7-1-111, Table 2-2.

**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.....	8,830 pounds
Maximum Weight.....	10,500 pounds
Height.....	92 inches
Width.....	108 inches
Overall Length.....	210 inches
Overhang: Front.....	0 inches
Rear (EFTC).....	18 inches
Center of Balance (CB).....	95 inches
Extraction System.....	EFTC

*Figure 6-3. M998, 1 1/4-ton truck with six stinger weapon systems rigged for low-velocity airdrop*

Table 6-1. Equipment required for rigging six stinger weapon systems in the M998, 1 1/4-ton truck for low-velocity airdrop

NATIONAL STOCK NUMBER	ITEM	QUANTITY
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
8305-00-958-3685	Felt, 1/2-inch thick	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	2 sheets
	8- by 36-in	(1)
	12- by 36-in	(1)
	13- by 66-in	(3)
	20- by 36-in	(1)
	21- by 36-in	(1)
5530-00-128-4981	Plywood, 3/4-in: 36- by 70-in	1
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-ft	13
8305-00-268-2411	Webbing:	
	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular: 1/2-in	As required