CHAPTER 6

RIGGING M966, M1036, AND M1121 TOW CARRIERS FOR LOW-VELOCITY AIRDROP ON A TYPE V PLATFORM

Description of Load

6-1. The unrigged M966 TOW carrier (Figure 6-1) is described in FM 10-517/TO 13C7-1-111, Chapter 1. The truck is rigged on a 16-foot, type V airdrop platform for low-velocity airdrop. An accompanying load weighing a minimum of 800 pounds and a maximum of 2,000 pounds must be rigged in the truck. The load requires two G-11 cargo parachutes. The M1036 is the same truck with the addition of a winch, and is rigged the same as the M966. The M1121 is a heavier version of the TOW carrier, but is rigged in the same way as the M966 and M1036.

Preparing Platform

6-2. Prepare a 16-foot, type V airdrop platform according to TM 10-1670-268-20&P/TO 13C7-52-22. Install four tandem links and 18 load tie-down clevises according to FM 10-500-2/TO 13C7-1-5, and as shown in FM 10-517/TO 13C7-1-111, Figure 2-2.

NOTES: 1. You will need FM 10-517/TO 13C7-1-111 to rig this load.
2. The nose bumper may or may not be installed.
3. Measurements given in this chapter are from the front edge of the platform, NOT from the front edge of the nose bumper.

Figure 6-1. M966 TOW carrier

Preparing and Positioning Honeycomb Stacks

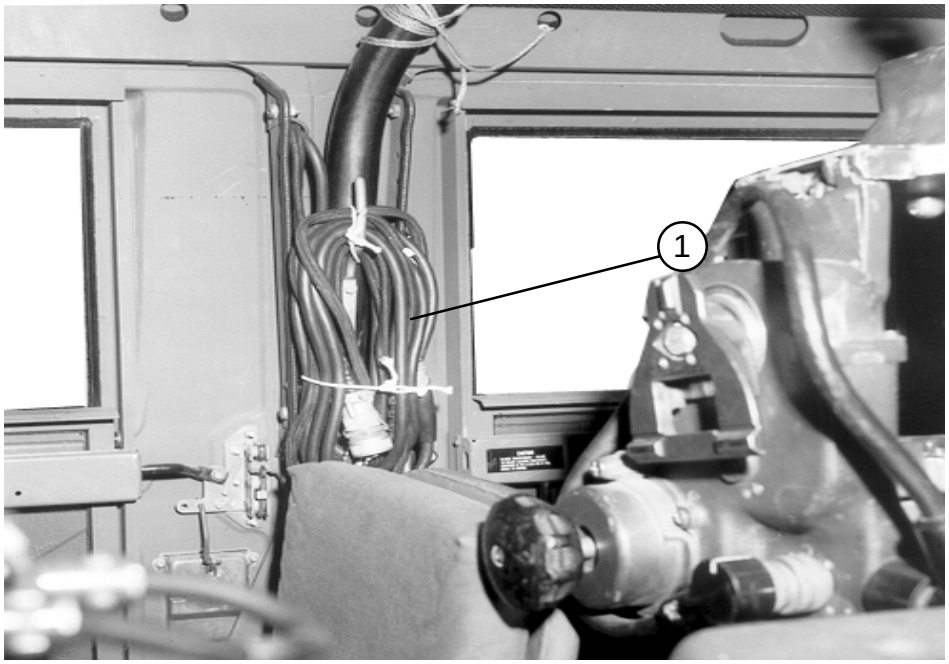
6-3. Build the honeycomb stacks as shown in FM 10-517/TO 13C7-1-111, Figures 2-3 and 2-4. Position the stacks on the platform as shown in FM 10-517/TO 13C7-1-111, Figure 2-5.

Preparing Truck

6-4. Prepare the truck as described in FM 10-517/TO 13C7-1-111, Paragraphs 2-4a through e, g, and h, and as shown in Figures 2-6 and 2-7, 2-8 (omit steps 1 and 3), 2-9, 2-11, and 2-12. Use the closed-body preparation procedures given in FM 10-517/TO 13C7-1-111, Figures 3-2 and 3-3.

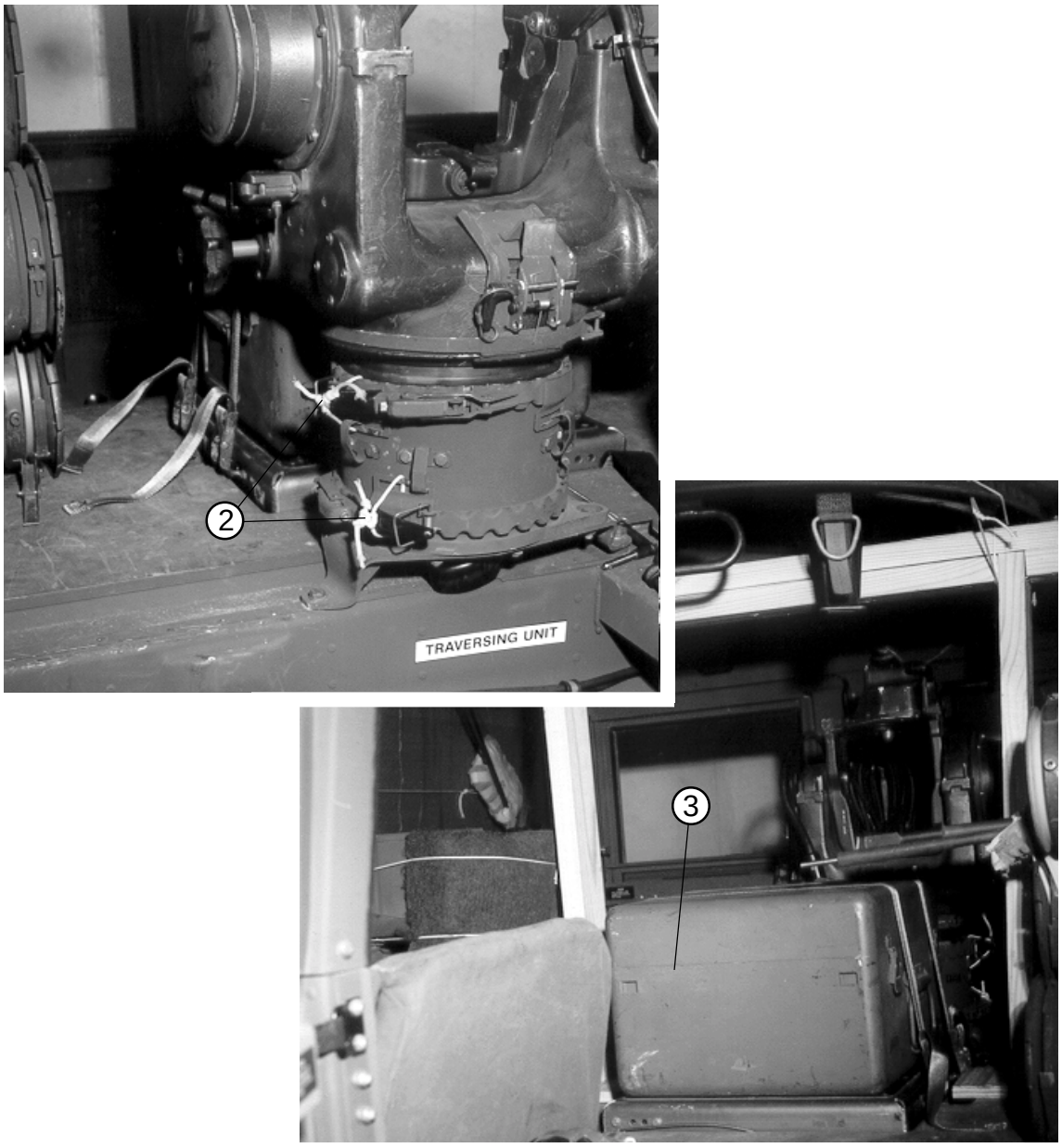
Stowing Accompanying Load and Securing Doors

6-5. Prepare and stow the TOW equipment as shown in Figure 6-2 below. Secure the hatch cover as shown in FM 10-517/TO 13C7-1-111, Figure 3-4, step 11.



(1) Disconnect the TOW system power cables, roll them, and tie them with type III nylon cord to convenient places in the truck.

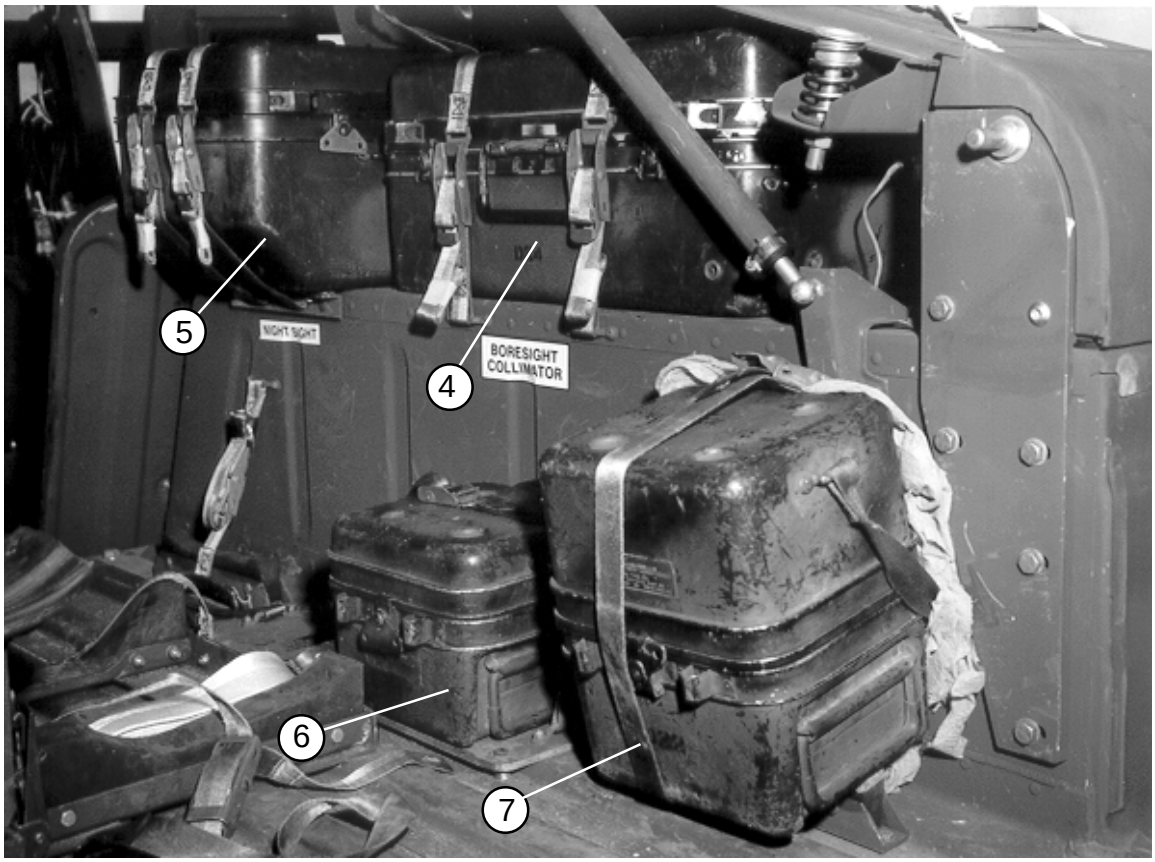
Figure 6-2. TOW Equipment Prepared and Stowed



(2) Place the traversing unit on its stand. Fasten the securing straps provided, and safety the latches with type III nylon cord.

(3) Place the missile guidance system box in its rack, and secure it with the straps provided.

Figure 6-2. TOW Equipment Prepared and Stowed (continued)



(4) Place the boresight collimator on the shelf in the right rear part of the truck. Secure the collimator with the retainer straps.

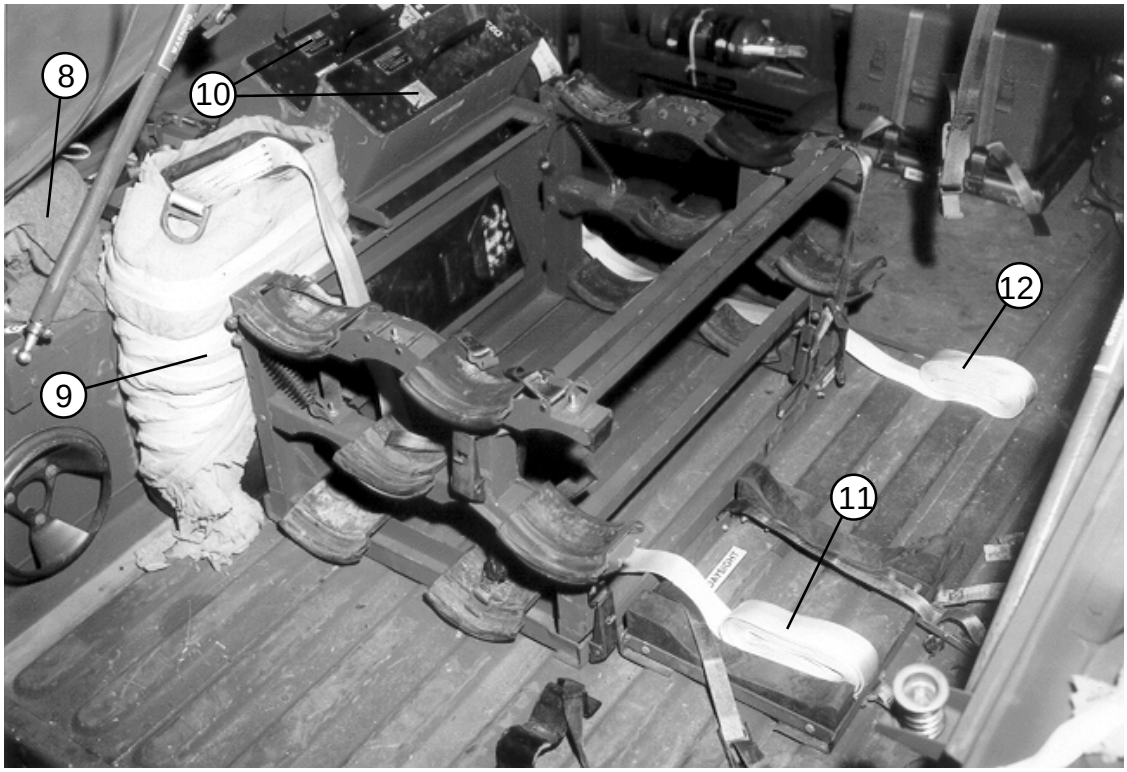
(5) Place the infrared nightsight set on the shelf in the right rear part of the truck next to the boresight collimator. Secure the nightsight set with the retainer straps.

(6) Place the nightsight battery set on the floor in the right rear part of the truck. Secure the battery set with the retainer straps.

(7) Place the battery power conditioner on the floor in the right rear part of the truck. Secure the battery power conditioner with the retainer straps.

Note: Pad the equipment shown above, as necessary, with cellulose wadding to prevent the equipment from rubbing against the body of the truck.

Figure 6-2. TOW Equipment Prepared and Stowed (continued)



8 Place the highway emergency kit in the left rear part of the truck. Tie the kit in place with type III nylon cord.

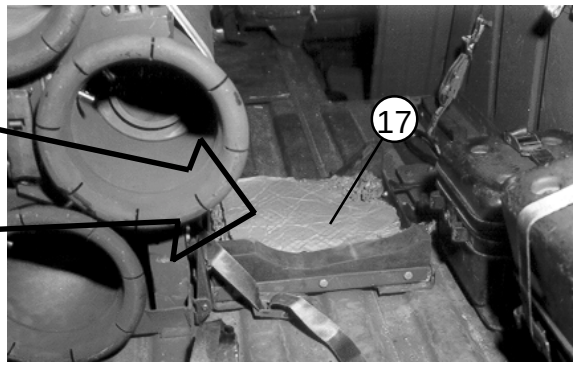
9 Pad the M13 decontamination apparatus with felt or cellulose wadding. Tape the padding in place. Place the decontamination apparatus in its rack, and fasten the retainer straps.

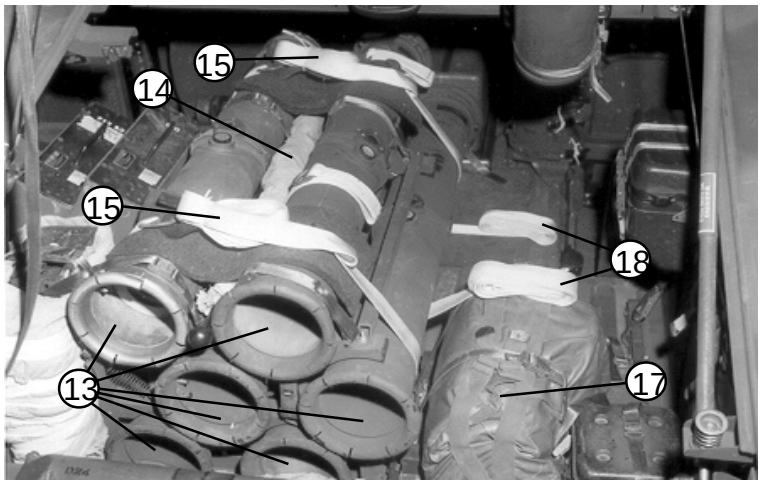
10 Place the missile guidance system battery packs in their racks. Secure them in place with their fasteners.

11 Position a 15-foot lashing under the rear of the TOW missile rack.

12 Position a 15-foot lashing under the front of the TOW missile rack, and in front of the rack support.

Figure 6-2. TOW Equipment Prepared and Stowed (continued)





(13) Place six TOW missiles in the rack with their nose ends to the front. Secure them with the straps provided.

(14) Wrap the radio antenna with cellulose wadding, and place it between the top two missiles.

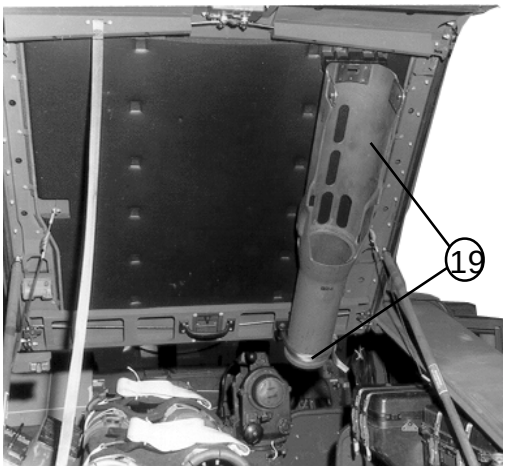
(15) Fasten the pre-positioned lashings over the missiles. Pad the missiles with felt under the load binders.

(16) Pad the optical sight generously with cellulose wadding and place it in its bag.

(17) Cut a piece of honeycomb to fit in the sight bracket. Place the sight bag in the bracket, and secure it with the straps provided.

(18) Run two 15-foot lashings around the right three missiles.

Figure 6-2. TOW Equipment Prepared and Stowed (continued)

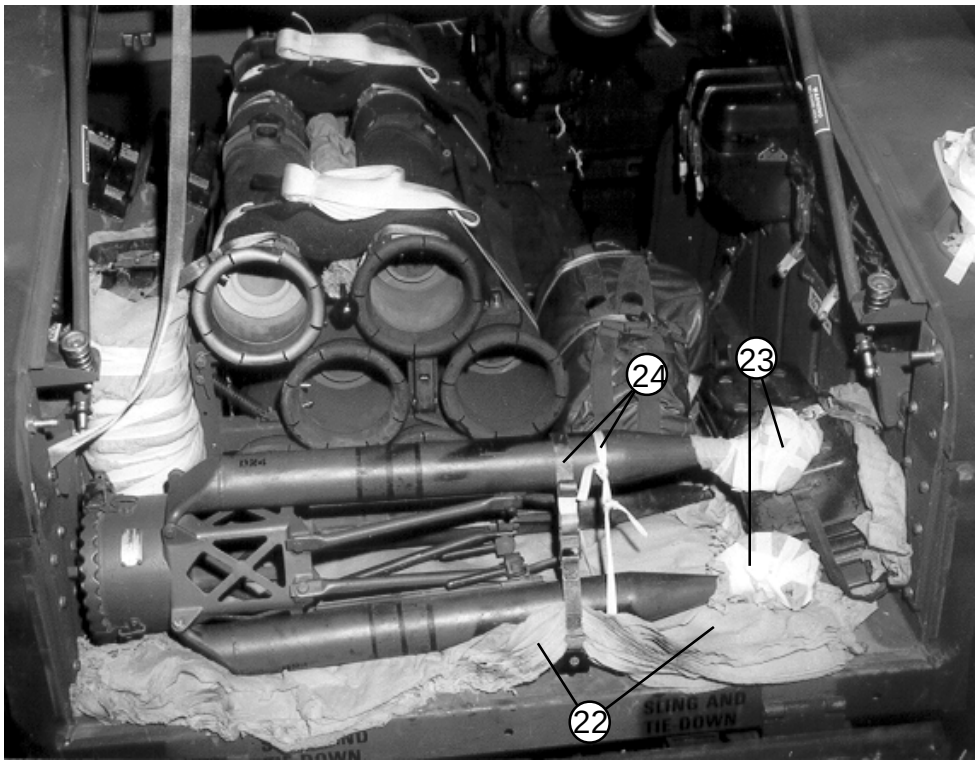


(19) Place the missile launcher tube in its rack on the hatch cover. Secure it with the strap pro vided.

(20) Lay the camouflage net bags to the right of the missiles.

(21) Secure the camouflage net bags to the missiles with the lashings pre-positioned in step 18 above. Fasten the load binders against the bags, and not against the missiles.

Figure 6-2. TOW Equipment Prepared and Stowed (continued)



(22) Pad the tripod storage area with cellulose wadding.

(23) Place the tripod in its storage rack. Pad the legs with cellulose wadding where they touch the battery power conditioner.

(24) Secure the tripod in place with the retainer strap and a length of 1/2-inch tubular nylon webbing.

Figure 6-2. TOW Equipment Prepared and Stowed (continued)

Lifting and Positioning Truck and Installing Drive-Off Aids

6-6. If drive-off aids are to be used, install them on the platform as shown in FM 10-517/TO 13C7-1-111, Figure 2-16. Install lifting slings on the truck and position the truck on the honeycomb stacks as shown in FM 10-517/TO 13C7-1-111, Figure 2-17. Install the drive-off aids to the rear wheels of the truck as shown in FM 10-517/TO 13C7-1-111, Figure 2-18.

Lashing Truck

6-7. Lash the truck to the platform with fifteen 15-foot tie-down assemblies as shown in FM 10-517/TO 13C7-1-111, Figures 2-19 and 2-20, and according to FM 10-500-2/TO 13C7-1-5.

Installing and Safetying Suspension Slings

6-8. Install and safety four 16-foot (2-loop), type XXVI nylon suspension slings as shown in FM 10-517/TO 13C7-1-111, Figure 3-5.

Stowing Cargo Parachutes

6-9. Stow two G-11 cargo parachutes on the load according to FM 10-500-2/TO 13C7-1-5, and as shown in FM 10-517/TO 13C7-1-111, Figure 2-22.

Installing Parachute Release

6-10. Prepare and install an M-1 cargo parachute release according to FM 10-500-2/TO 13C7-1-5, and as shown in FM 10-517/TO 13C7-1-111, Figure 3-6.

Installing Extraction System

6-11. Install the EFTC extraction system according to FM 10-500-2/TO 13C7-1-5, and as shown in FM 10-517/TO 13C7-1-111, Figure 2-24.

Installing Provisions for Emergency Restraints

6-12. Install provisions for emergency restraints according to FM 10-500-2/TO 13C7-1-5.

Placing Extraction Parachute

6-13. Select the extraction parachute and extraction line needed, using the extraction line requirements table in FM 10-500-2/TO 13C7-1-5. Rig the extraction line in a line bag according to TM 10-1670-286-20/TO 13C5-41. Place the extraction parachute and extraction line on the load for installation in the air craft.

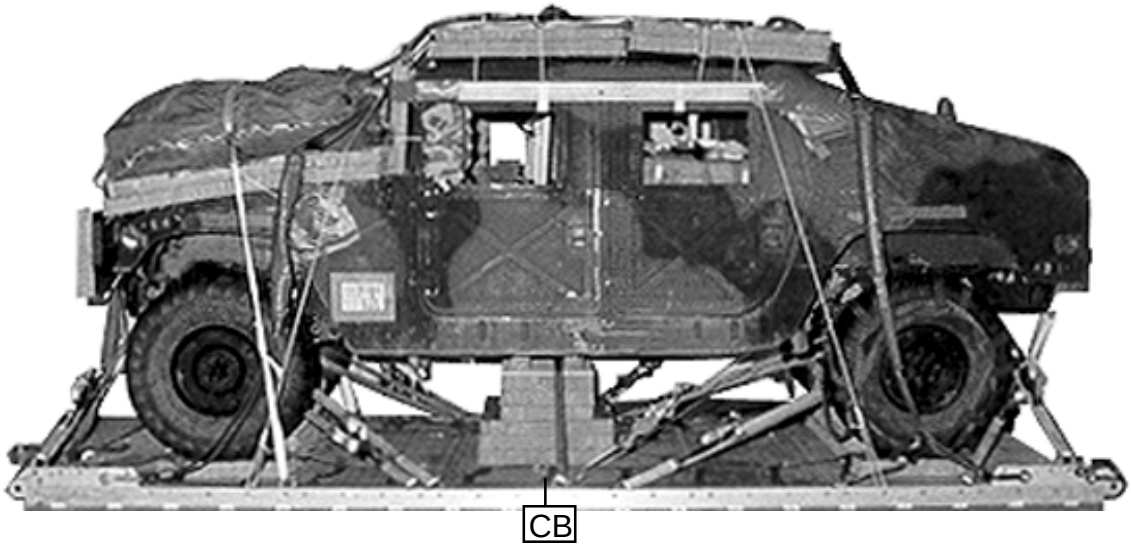
Marking Rigged Load

6-14. Mark the rigged load according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 6-3. Complete Shipper's Declaration for Dangerous Goods. If the load varies from the one shown, the weight, height, CB, and parachute requirements must be recomputed.

Equipment Required

6-15. Use the equipment listed in Table 6-1 to rig this load. The equipment for rigging the accompanying load is included in Table 6-1.

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	8,810 pounds
Maximum load allowed	10,500 pounds
Height (with two G-11 parachutes)	91 inches
Width	108 inches
Length	215 inches
Overhang: Front	0 inches
Rear	18 inches
CB (from front edge of platform)	102 inches

Figure 4-3. M966 TOW carrier rigged for low-velocity airdrop

Table 6-1. Equipment required for rigging the M966 TOW carrier for low-velocity airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
4030-00-090-5354	Clevis, suspension, 1-in (large)	8
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5785	Coupling, airdrop, extraction force transfer with cable, 16-ft	1
	Cover:	
1670-00-360-0328	Clevis, large	1
1670-00-360-0329	Link, type IV	3
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 (line bag)	2
	Line, drogue (for C-17)	
1670-01-064-4452	60-ft (1-loop), type XXVI	1
	Line, extraction:	
1670-01-062-6313	60-ft (3-loop), type XXVI (for C-130)(Use w/ 140-ft for C-5)	1
1670-01-107-7651	140-ft (3-loop), type XXVI (for C-141B,C-5, or C-17)	1
	Link assembly:	
1670-00-783-5988	Type IV	3
	Two-point, 3/4-in	(1)
5306-00-435-8994	Bolt, 1-in diam, 4-in long	2
5310-00-232-5165	Nut, 1-in, hexagonal	2
1670-00-003-1953	Plate, side, 3 3/4-in	2
5365-00-007-3414	Spacer, large	2
	Lumber:	
5510-00-220-6146	2- by 4-in	As required
5510-00-220-6448	2- by 6-in	As required
5510-00-220-6274	4- by 4-in	As required
5315-00-010-4659	Nail, steel wire, 8d	As required

Table 6-1. Equipment required for rigging the M966 TOW carrier for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
1670-00-753-3928	Pad, energy-dissipating (honeycomb) 3- by 36- by 96-in	11 sheets
	Parachute: Cargo:	
1670-01-016-7841	G-11B	2
	Cargo extraction:	
1670-01-063-3716	22-ft	1
1670-01-063-3715	Drogue (for C-17) 15-ft	1
	Platform, airdrop, type V, 16-ft	
1670-01-353-8425	Bracket assembly, coupling	(1)
1670-01-162-2372	Clevis assembly, type V	(20)
1670-01-354-8424	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link assembly (Multipurpose link)	(4)
5530-00-128-4981	Plywood, 3/4-in	3 sheets
1670-01-097-8816	Release, cargo parachute, M-1	1
	Sling, cargo, airdrop For suspension:	
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	4
	For lifting:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	2
1670-01-062-6303	12-ft (2-loop), type XXVI nylon webbing	2
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6302	20-ft (2-loop), type XXVI nylon webbing	2
5340-00-040-8219	Strap, parachute release, multi-cut, comes w/ 3 knives	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tie-down assembly, 15-foot	27
1670-00-431-8486	Vehicle drive-off aids	1
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required
8305-00-263-3591	Type VIII	As required