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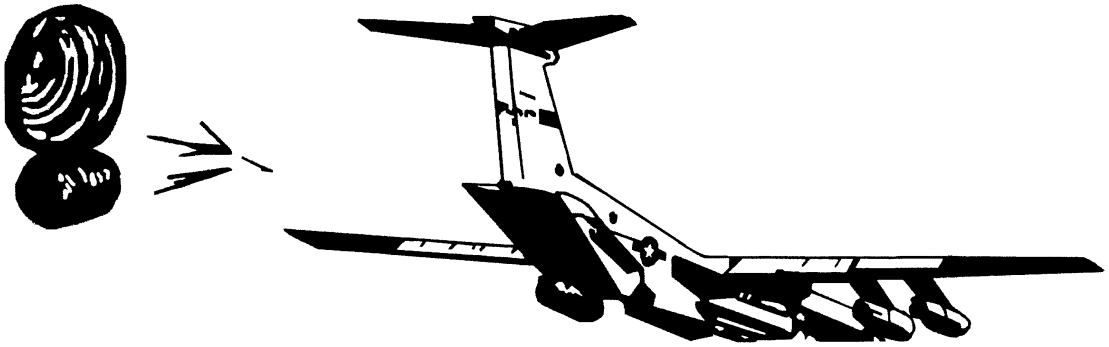
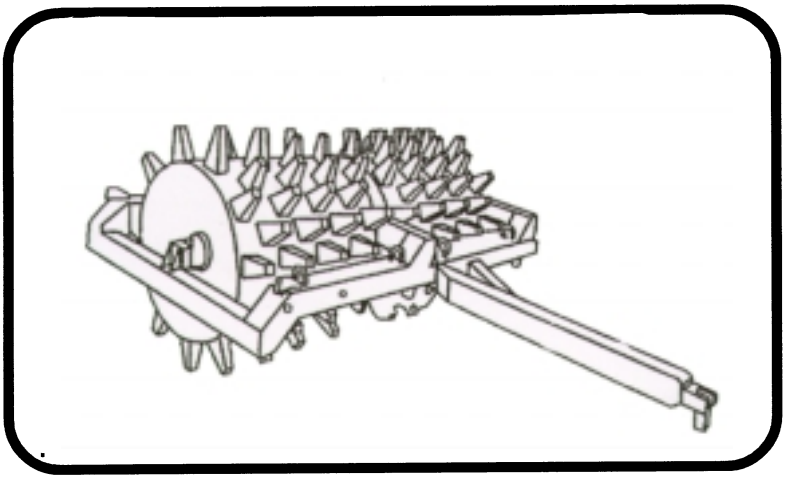


AIRDROP OF SUPPLIES AND EQUIPMENT:

RIGGING ROAD ROLLERS



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CHANGE
NO. 7

AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING ROAD ROLLERS

This change adds the procedures for rigging the vibratory compactor (Model CS-433C and Model CS-433P) for low-velocity airdrop on a type V platform.

FM 10-528/TO 13C7-71, 25 November 1977, is changed as follows:

1. New changed material is identified by a vertical bar (▮) in the margin opposite the changed material.

2. File this transmittal sheet in front of the publication for reference purposes.

3. Remove old pages and insert new pages as indicated below:

Remove pages	Insert pages
Cover	Cover
i and ii	i and ii
vii through ix	vii through ix
1-1	1-1
	13-1 through 14-23

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FIELD MANUAL
NO. 10-528
TECHNICAL ORDER
No. 13C7-26-71

HEADQUARTERS
DEPARTMENT OF THE ARMY
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Washington, DC, 05 May 2000

AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING ROAD ROLLERS

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PREFACE

SCOPE

This manual tells and shows how to prepare and rig the vibratory compactor (Model CS-433C and Model CS-433P) on a 20-foot, type V platform for low-velocity airdrop. This manual is designed for use by all parachute riggers.

USER INFORMATION

The proponent of this publication is HQ TRADOC. You are encouraged to report any errors or omissions and to suggest ways for making this a better manual. Army personnel, send your comments on DA Form 2028 directly to:

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Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER I
INTRODUCTION

1-1. Description of Items

The towed road rollers covered in this manual are listed below. Dimensions and weights are given in the description of items paragraph in each chapter.

a. 7- 35-ton ballast pneumatic tire roller
b. Model W-2 sheepsfoot roller
c. Model MDG 96 sheepsfoot roller
d. 13-wheel pneumatic tire roller
e. 11-wheel pneumatic tire roller
f. M435 4- to 35-ton ballast pneumatic tire roller
g. Type I, SM 54 vibrating smooth drum roller
h. DED gas/VP4D diesel vibrating roll
i. 13-wheel Model (PT-13) pneumatic tire roller
j. Vibratory Compactor Model CS-433C
k. Vibratory Compactor Model CS-433P

1-2. Special Considerations

A copy of this manual should accompany the rigged load to the aircraft. The loads covered in this manual may include hazardous materials such as explosives, gasoline, or batteries. When included and, labeled according to AFJMAN 24-204/TM38-250.

CHAPTER 13

RIGGING THE VIBRATORY COMPACTOR (MODEL CS-433C) ON A 20-FOOT, TYPE V PLATFORM FOR LOW- VELOCITY AIRDROP

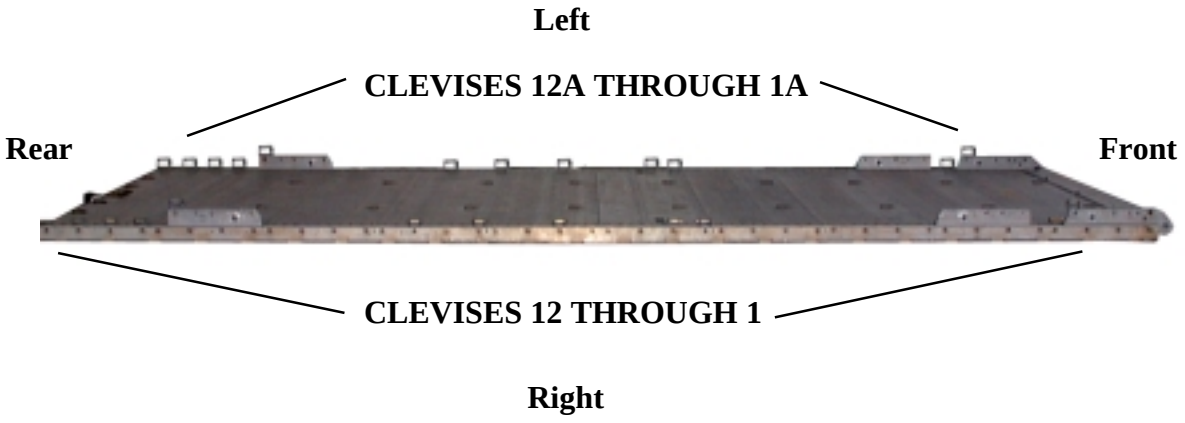
13-1. Description of Load

The vibratory compactor (Figure 13-1) is a four-cylinder, turbocharged, self-propelled diesel driven engine. This load is rigged on a 20-foot, type V platform with four G-11 cargo parachutes.The rigged weight of the vibratory compactor is 18,890 pounds. It is 262 inches long, 99 inches high with the roll over protection system removed, and 108 inches wide, when prepared for rigging.

13-2. Preparing the Platform

Prepare a 20-foot, type V platform using two tandem multi-purpose links, four suspension links and 24 tiedown clevises as shown in Figure 13-2.

Figure 13-1. Vibratory compactor (Model CS-433C)



Step:

1. Install a tandem multi-purpose link to each platform side rail using holes 1, 2, and 3.

2. Install a suspension link to each platform side rail using holes 6, 7, and 8.

3. Install a suspension link to each platform side rail using holes 33, 34, and 35.

4. Install a clevis on bushing 4 on each of the front tandem links.

5. Install a clevis on bushing 4 on each of the second suspension links.

6. Starting at the front of each platform side rail, install clevises on the bushings bolted on holes 4,17,18, 22, 25, 27, 37, 38, 39 and 40.

7. Starting at the front of the platform number the clevises 1 through 12 on the right side and 1A through 12A on the left side.

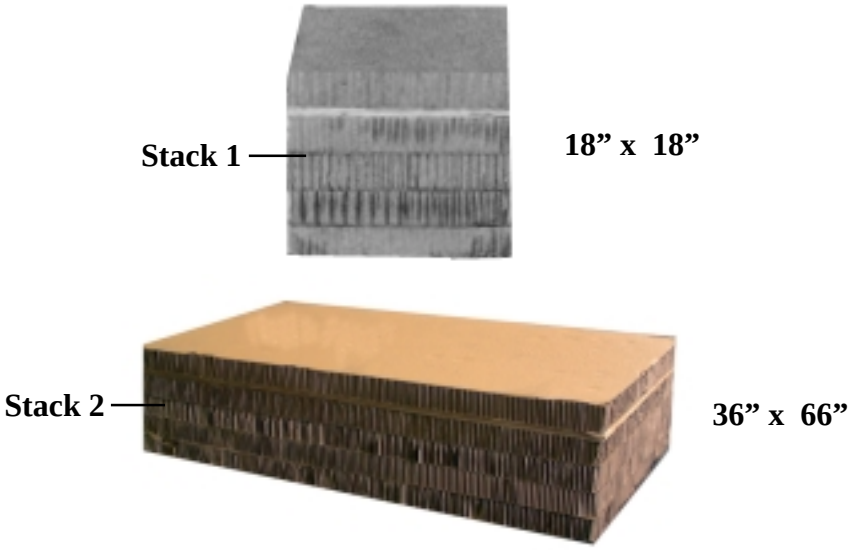
8. Label the tiedown rings according to FM 10-500-2/TO13C7-1-5.

Note: The nose bumper may or may not be installed. Measurements given in this section are from the front edge of the platform, not the front edge of the nose bumper.

Figure 13-2. Platform prepared

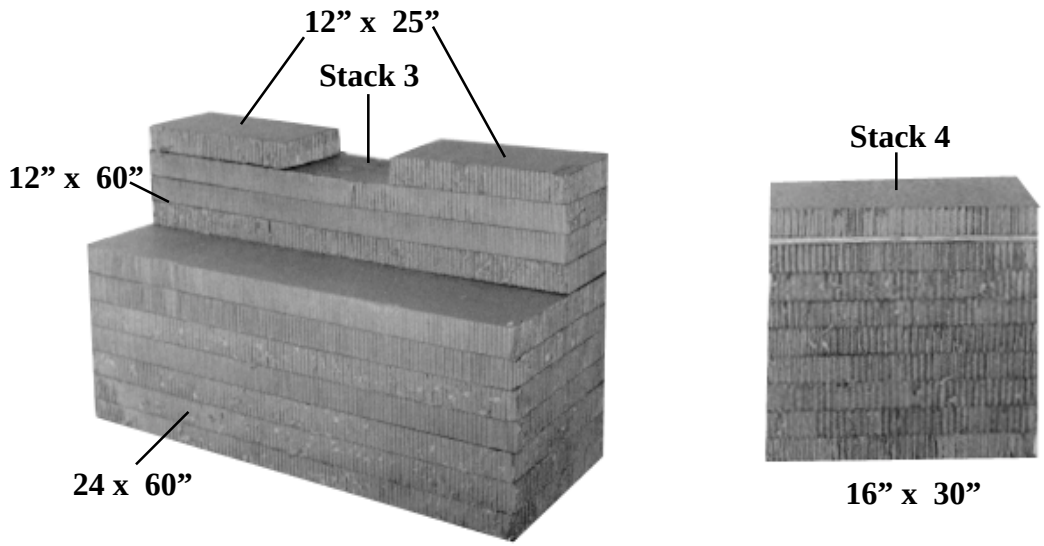
13-3. Preparing and Positioning Honeycomb Stacks

Prepare the honeycomb stacks as shown in Figures 13-3 through 13-5. Position the honeycomb stacks on the platform as shown in Figure 13-6.



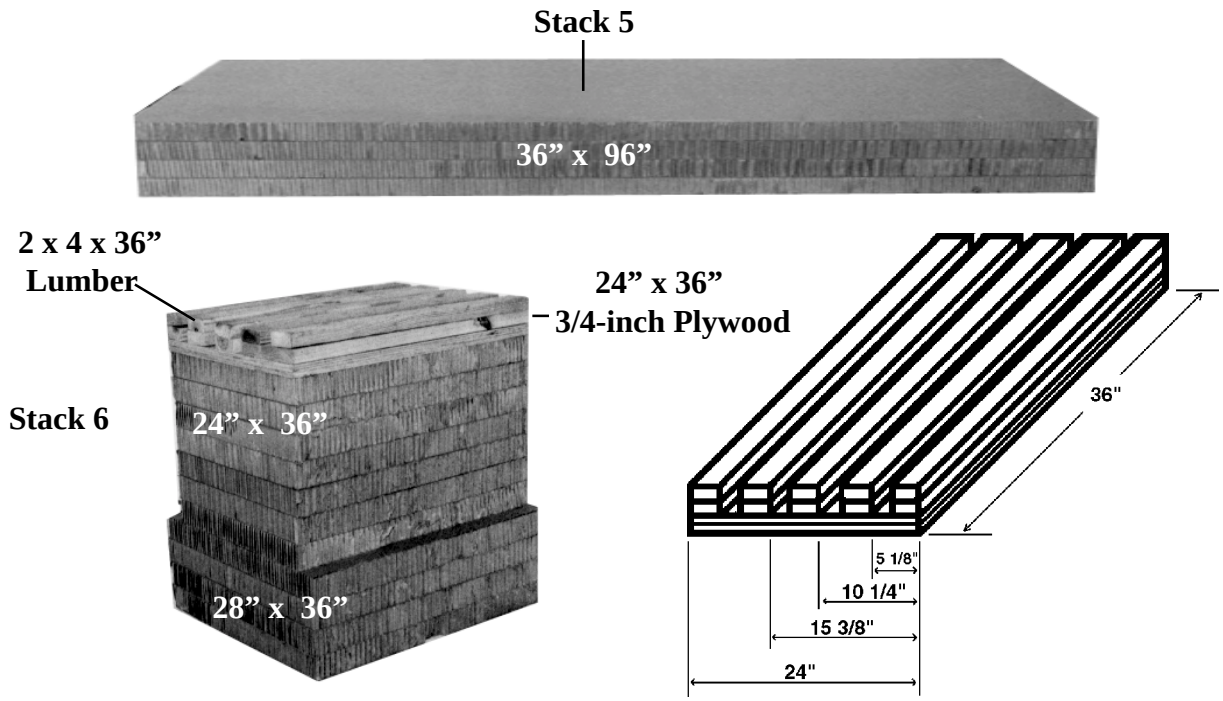
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	5	18	18	Honeycomb	Glue four pieces of honeycomb together to form a base.
	1	18	18	3/4-inch Plywood	Glue plywood to the base and glue the remaining 18-inch by 18-inch piece of honeycomb on top of the plywood.
2	5	36	66	Honeycomb	Glue the five pieces of honeycomb together to form a base.
	1	36	66	3/4-inch Plywood	Glue plywood to the top of the base and glue the remaining piece of 36-inch by 66-inch honeycomb to the top of the plywood.

Figure 13-3. Honeycomb stacks 1 and 2 prepared



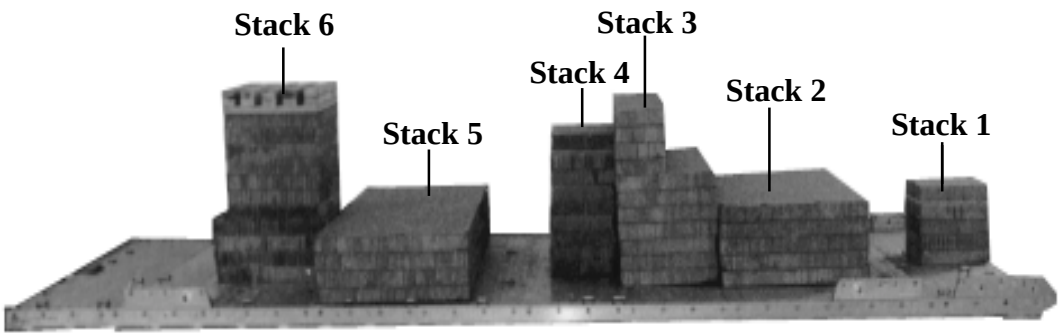
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	7	24	60	Honeycomb	Glue honeycomb together to form a base.
	3	12	60	Honeycomb	Glue pieces of honeycomb to the base aligned to the rear edge.
	2	12	25	Honeycomb	Glue each piece of honeycomb to the outer edge of the 12-inch by 60-inch piece of honeycomb.
4	9	16	30	Honeycomb	Glue eight pieces of honeycomb together to form a base.
	1	16	30	3/4-inch Plywood	Glue the plywood to the base. Glue the remaining 16-inch by 30-inch piece of honeycomb on top of the plywood.

Figure 13-4. Honeycomb stacks 3 and 4 prepared



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	4	36	96	Honeycomb	Glue pieces of honeycomb together to form a base.
6	4	28	36	Honeycomb	Glue pieces of honeycomb together to form a base.
	7	24	36	Honeycomb	Center and glue to base.
	2	24	36	3/4-inch Plywood	Position and nail ten pieces of lumber to the two pieces of plywood as shown in Figure 13-5.
	10	2 x 4	36	Lumber	

Figure 13-5. Honeycomb stacks 5 and 6 prepared



Step:

1. Position stack 1 centered and flush with the front edge of the platform.
2. Position stack 2 centered and 18 inches from stack 1.
3. Position stack 3 centered and flush against stack 2.
4. Position stack 4 centered and flush against stack 3.
5. Position stack 5 centered and 19 inches from stack 4.
6. Position stack 6 centered and flush against stack 5.

Figure 13-6. Honeycomb stacks positioned on platform

13-4. Preparing and Positioning Vibratory Compactor on Platform

Prepare and position the vibratory compactor on a platform as shown in Figures 13-7 and 13-8.

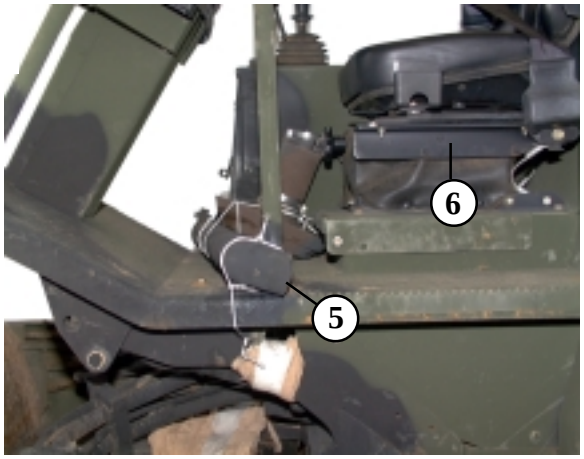
1. Remove the roll over protection system and tape all lights and reflectors.
2. Tape cellulose wadding to all lashing tiedown points.

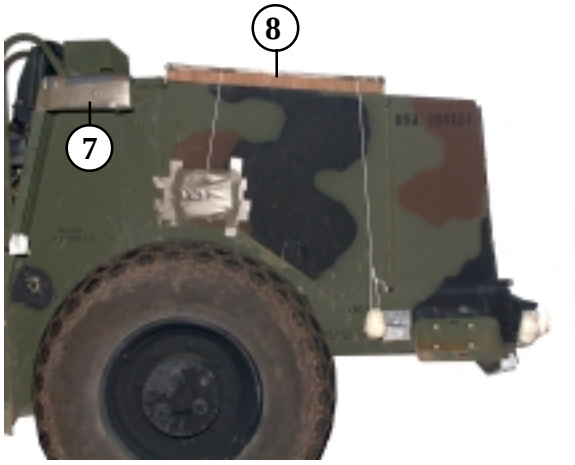
Figure 13-7. Vibratory compactor prepared

(3) Tape cellulose wadding to the upper pivot arm of the chassis.

(4) Tape cellulose wadding to the hydraulic attaching point of the blade.

Figure 13-7. Vibratory compactor prepared (continued)





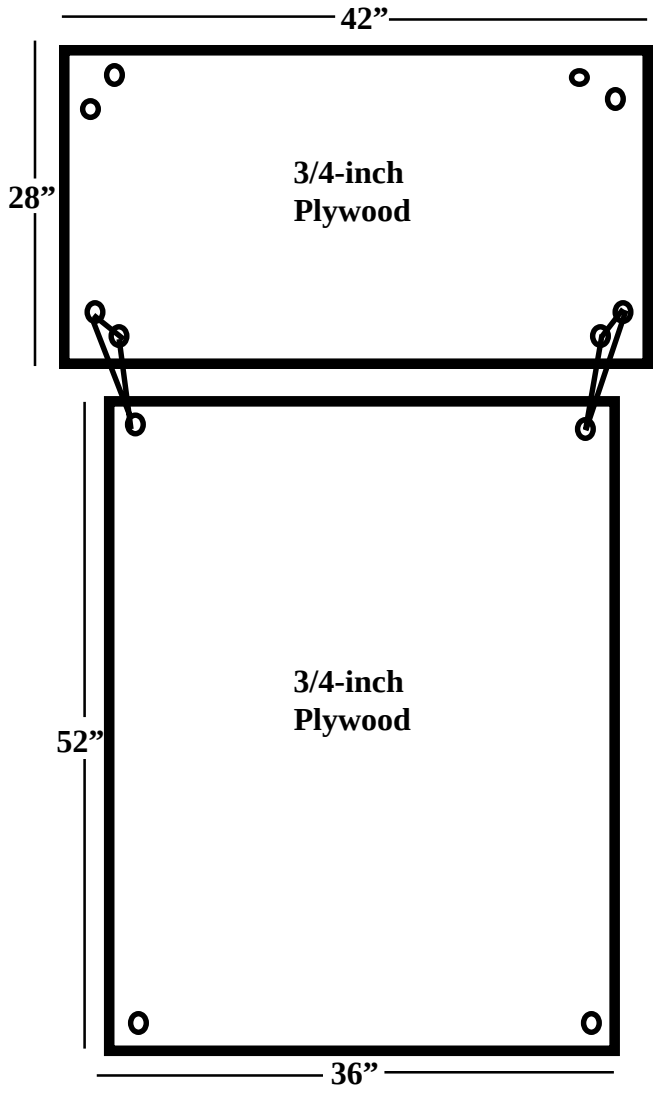
(5) Remove the air-filter and exhaust pipe. Secure them to convenient points in the cab.

(6) Lower the seat and lock it down.

(7) Tape felt on the upper portions of the rear wheel wells where the slings will make contact.

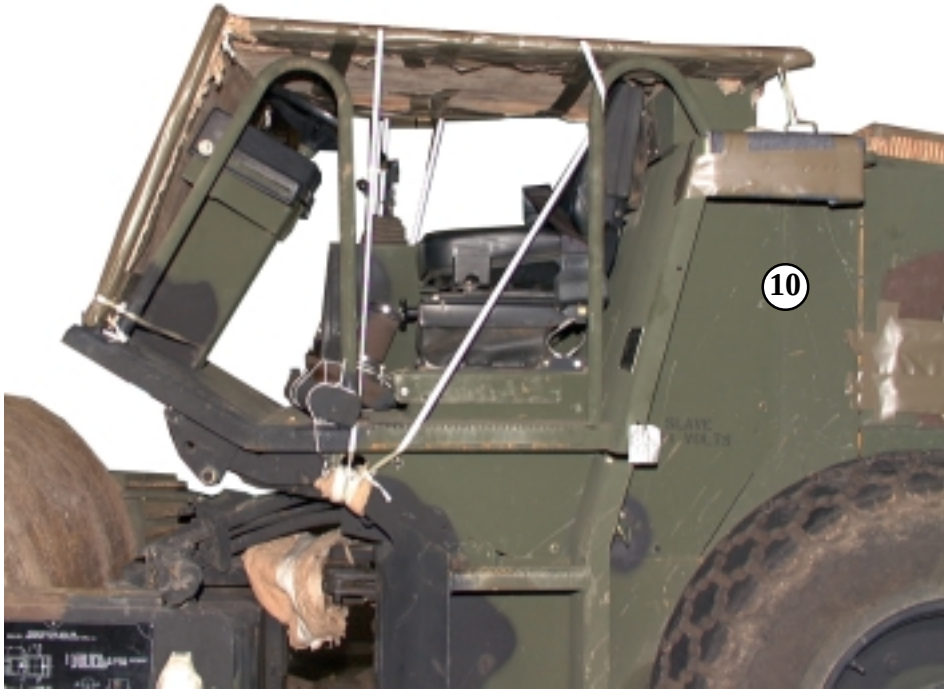
(8) Tape the edges of a 29-inch by 38-inch piece of honeycomb and secure it on top of the engine compartment with type III nylon cord tied to a convenient point on the load.

Figure 13-7. Vibratory compactor prepared (continued)



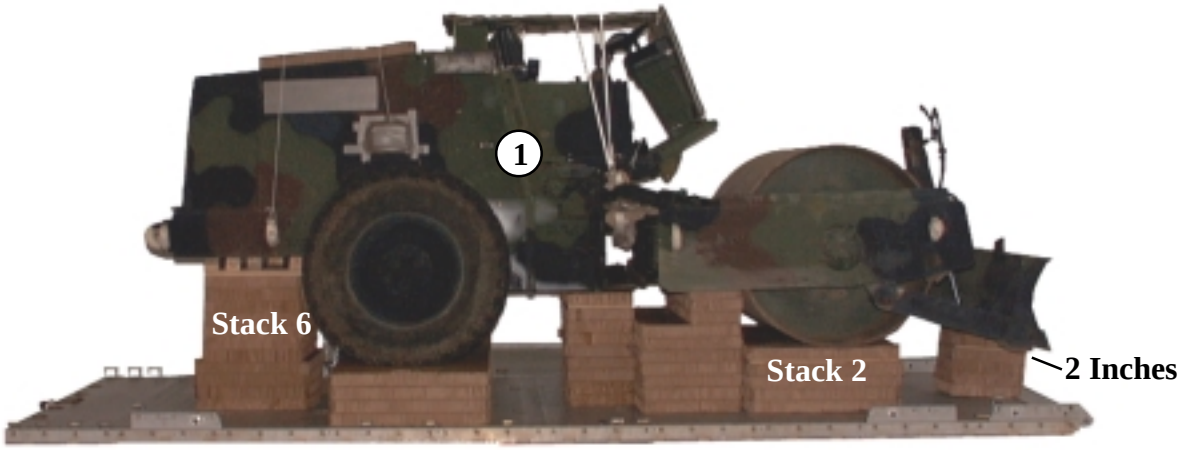
9 Tie a 28-inch by 42-inch piece of 3/4-inch plywood flush with a 36-inch by 52-inch piece of 3/4-inch plywood using type III nylon cord. Tape cellouse wadding to the outer edges of plywood.

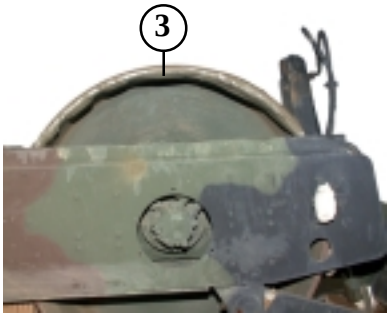
Figure 13-7. Vibratory compactor prepared (continued)



(10) Using 1/2-inch tubular nylon, secure the plywood to the cab of the vibratory compactor and to a convenient point on the load.

Figure 13-7. Vibratory compactor prepared (continued)





(1) Position the roller on the honeycomb aligning the front edge of the blade 2 inches from the front edge of the platform.

(2) Make sure the bolts under the rear engine compartment are aligned between the 4th and 5th pieces of 2 x 4 x 36-inch lumber on stack 6 (not shown).

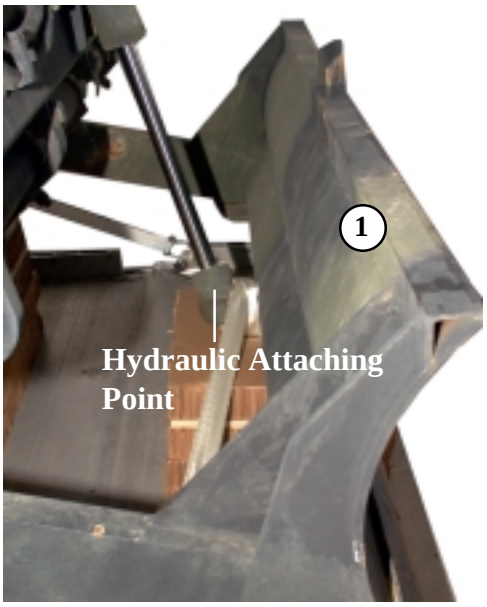
(3) Tape felt on the top edges of the roller.

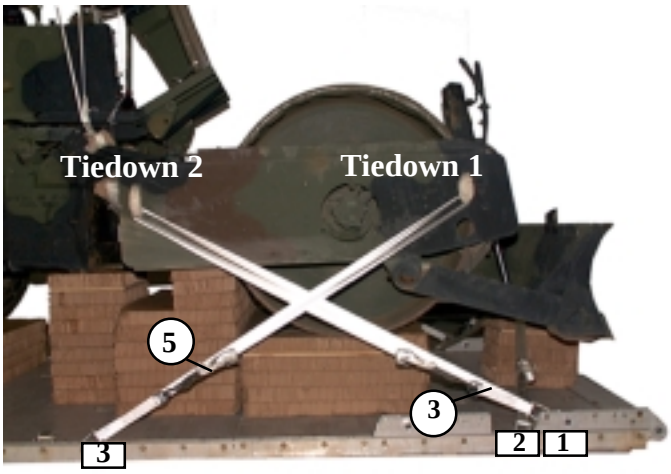
(4) Secure the blade control with type III nylon cord to the fuse box hinge.

Figure 13-8. Vibratory compactor positioned on platform

13-5. Lashing Vibratory Compactor to Platform

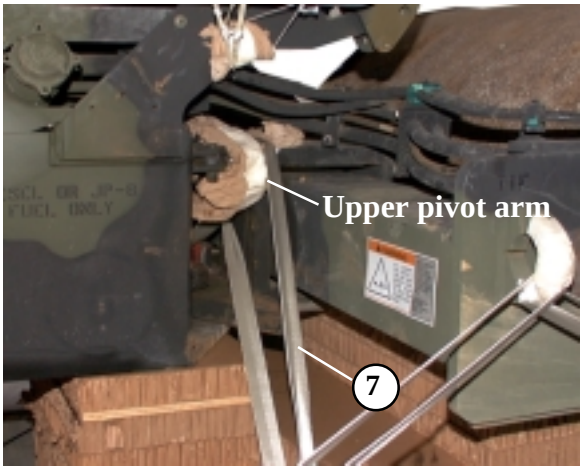
Lash the vibratory compactor to the platform as shown in Figures 13-9 through 13-11 and FM 10-500-2/TO 13C7-1-5.

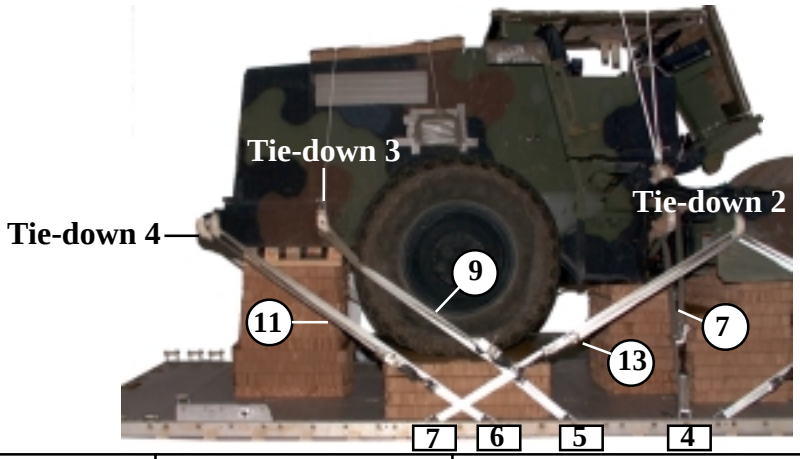




Lashing Number	Clevis Number	Instructions
		Pass lashing:
1	2	Around right hydraulic attaching point of blade.
2	2A	Around left hydraulic attaching point of blade.
3	1	Through tie-down number 2, right side.
4	1A	Through tie-down number 2, left side.
5	3	Through tie-down number 1, right side.
6	3A	Through tie-down number 1, left side.

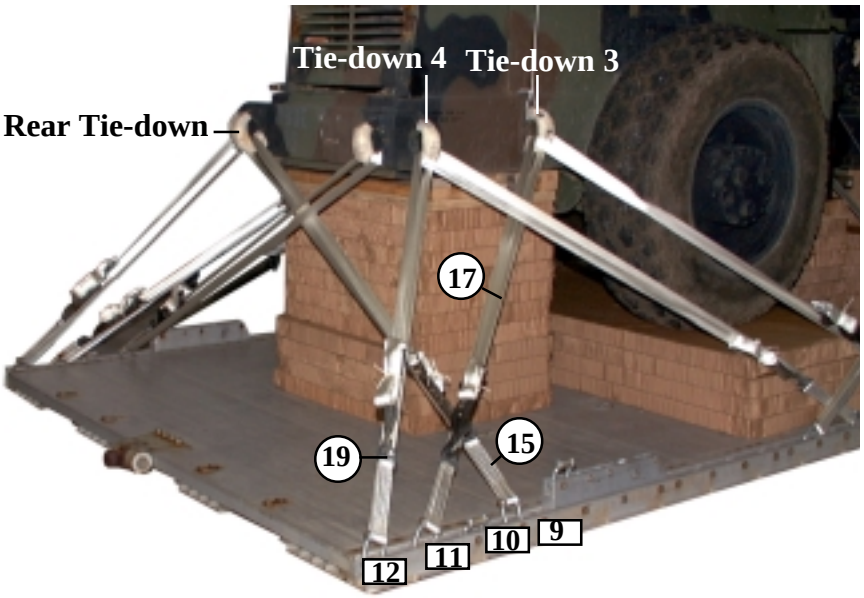
Figure 13-9. Lashings 1 through 6 installed





Lashing Number	Clevis Number	Instructions
		Pass lashing:
7	4	Around upper pivot arm of chassis, right side.
8	4A	Around upper pivot arm of chassis, left side.
9	5	Through tie-down number 3, right side.
10	5A	Through tie-down number 3, left side.
11	6	Through tie-down number 4, right side.
12	6A	Through tie-down number 4, left side.
13	7	Through tie-down number 2, right side.
14	7A	Through tie-down number 2, left side.

Figure 13-10. Lashings 7 through 14 installed

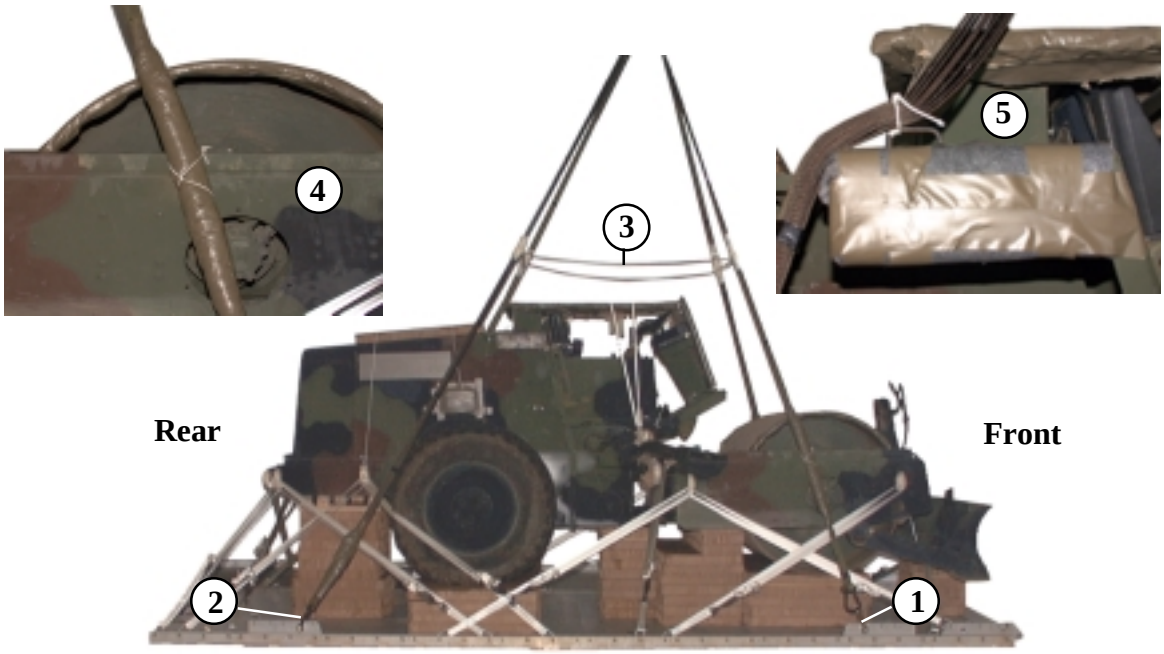


Lashing Number	Clevis Number	Instructions
		Pass lashing:
15	9	Through rear tie-down, left side.
16	9A	Through rear tie-down, right side.
17	11	Through tie-down number 3, right side.
18	11A	Through tie-down number 3, left side.
19	12	Through tie-down number 4, right side.
20	12A	Through tie-down number 4, left side.

Figure 13-11. Lashings 15 through 20 installed

13-6. Installing and Safetying Suspension Slings and Deadman's Tie

Install and safety four 16-foot (4-loop), type XXVI nylon webbing slings to the tandem links as shown in Figure 13-12.



1. Place a large clevis in one end of a 16-foot (4-loop), type XXVI nylon suspension sling. Attach another large clevis to the front right and front left suspension links. Attach the large clevises together and safety-tie them with type III nylon cord in an hourglass configuration.

2. Place a 5 1/2-inch two point link in one end of a 16-foot (4-loop), type XXVI nylon suspension sling. Pass a 3-foot (4-loop), type XXVI nylon sling through the two point link and fold in half. Attach both running ends of the 3-foot sling to a large clevis. Attach the large clevis to the rear right and rear left suspension links. Tape a piece of felt to the 5 1/2-inch two point link.

3. Raise the slings and install the deadman's tie on the front and rear sets of slings IAW FM 10-500-2/TO 13C7-1-5.

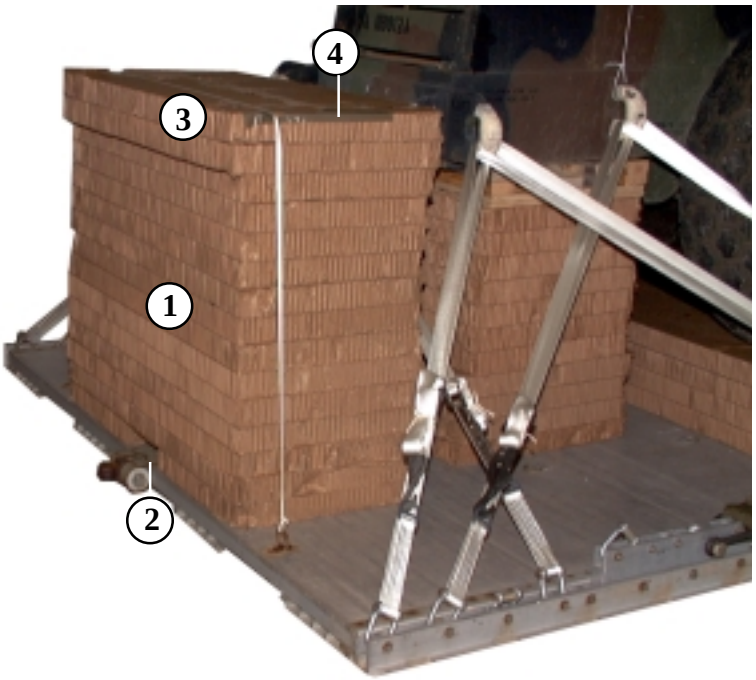
4. Tape a piece of felt on the front slings, starting at a point 18 inches above the clevis to 18 inches above the roller.

5. Tie the rear slings to the padded and taped portions of the wheel well using type III nylon cord.

Figure 13-12. Suspension slings and deadman's tie installed

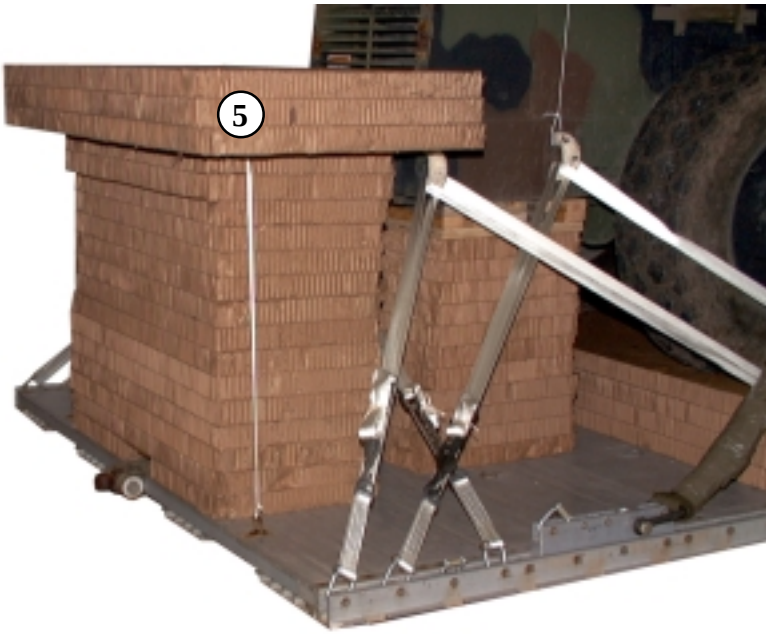
13-7. Building and Positioning Parachute Stowage Platform

Build and position the parachute stowage platform as shown in Figure 13-13.



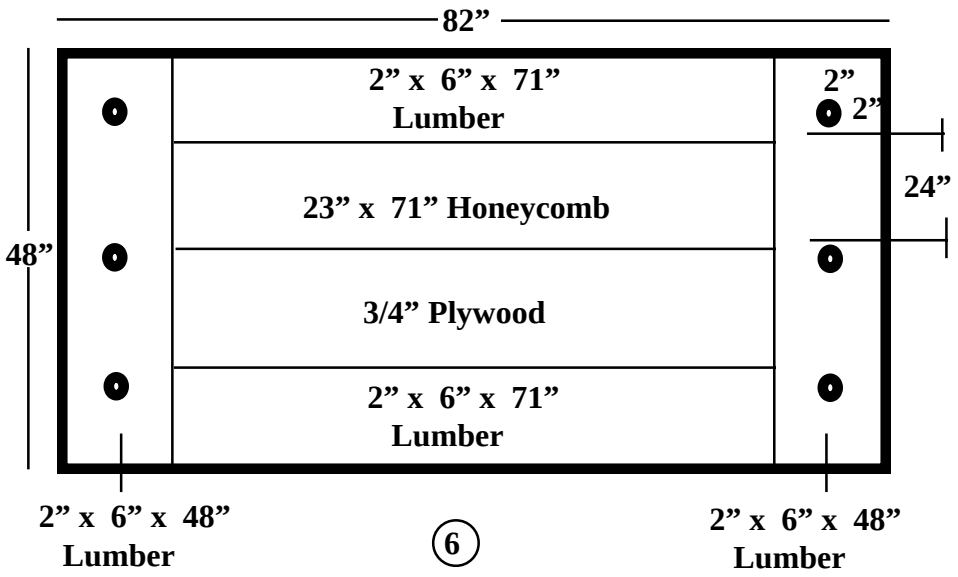
1. Cut and glue 13 layers of 23-inch by 50-inch pieces of honeycomb together to form the base.
2. Cut a channel in the bottom layer of the honeycomb that will allow the extraction bracket to fit under it.
3. Cut and glue two layers of 36-inch by 50-inch pieces of honeycomb together on top of the base and flush with the front edge.
4. Tape the outer edges of the 26-inch by 50-inch pieces of honeycomb and position it on the platform centered and flush with the rear edges. Secure it to the platform with 1/2-inch tubular nylon webbing to deck-rings 10A and 10D.

Figure 13-13. Parachute stowage platform built and positioned



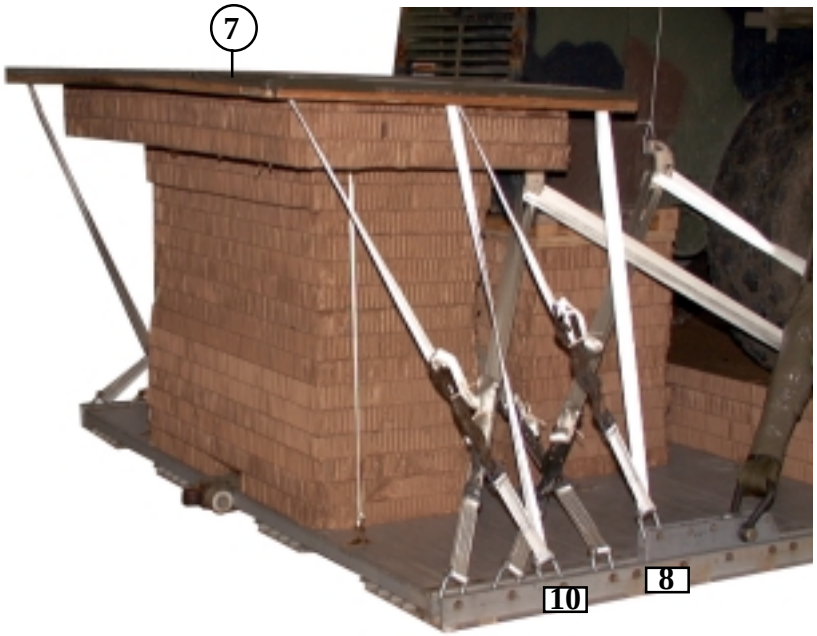
(5) Cut and glue three layers of 36-inch by 71-inch pieces of honeycomb centered on top of the base.

Figure 13-13. Parachute stowage platform built and positioned (continued)



6 Construct a parachute stowage platform using two pieces of 2-inch by 6-inch by 71-inch lumber, two pieces of 2-inch by 6-inch by 48-inch lumber, one piece of 48-inch by 82-inch plywood, and one piece of 23-inch by 71-inch honeycomb.

Figure 13-13. Parachute stowage platform built and positioned (continued)



7 Place the parachute stowage platform on the honeycomb stack. Secure it by routing a 15-foot lashing from clevis 8 to the front right hole to the center hole. Secure with a load binder. Route a 15-foot lashing from clevis 8A to the front left hole to the center hole and secure with a loadbinder.

8 Route a 15-foot lashing from clevis 10 to the center hole to the rear hole and secure with a loadbinder. Route a 15-foot lashing from clevis 10A to the center hole to the rear hole and secure with a loadbinder.

Figure 13-13. Parachute stowage platform built and positioned (continued)

13-8. Installing Cargo Parachutes

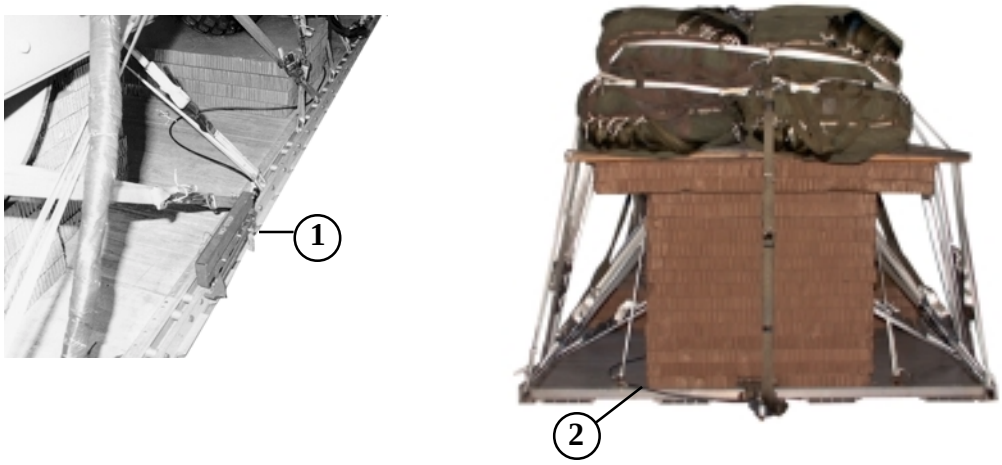
Install four G-11 cargo parachutes on the load according to FM 10-500-2/ TO 13C7-1-5 and as shown in Figure 13-14.

1. Prepare and stow four G-11 cargo parachutes in accordance with FM 10-500-2/ TO 13C7-1-5.
2. Restrain the parachutes using bushings 40, 40A, and 36, 36A on the platform.

Figure 13-14. Parachutes stowed

13-9. Installing Extraction System

Install the EFTC system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 13-15.

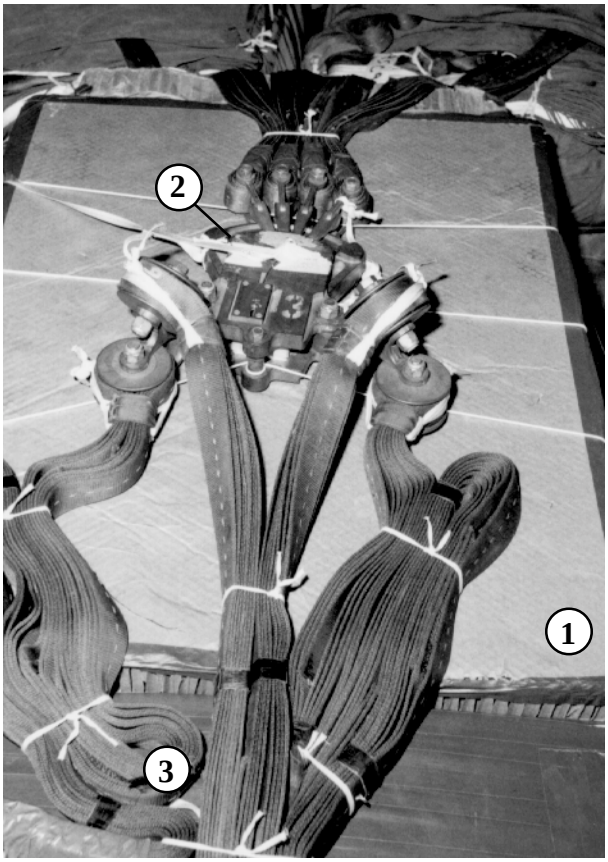


1. Install the components of the extraction force transfer coupling (EFTC) according to FM 10-500-2/TO 13C7-1-5. Use the rear mounting holes for the EFTC bracket.
2. Secure a 16-foot EFTC cable with type I, 1/4-inch cotton webbing to a convenient point on the platform.
3. Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.

Figure 13-15. EFTC installed

13-10. Installing Parachute Release

Install an M-2 cargo parachute release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 13-16.



1. Cut and position a 29-inch by 38-inch piece of honeycomb on the engine compartment and secure it with type III nylon cord.
2. Attach the suspension slings and the riser extensions to the M-2 release according to FM 10-500-2/TO 13C7-1-5. Secure the release to the platform with type III nylon cord.
3. S-fold the suspension slings and tie the folds with type I, 1/4-inch cotton webbing.

Figure 13-16. M-2 release installed

13-11. Installing Provisions for Emergency Restraints

Select and install provisions for emergency restraints according to the emergency aft restraint requirements table in FM 10-500-2/TO 13C7-1-5.

13-12. Placing Extraction Parachute

Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 10-500-2/TO 13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft.

13-13. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 13-17. If the load varies from the one shown, the weight, height, CB, tip-off curve, and parachute requirment must be recomputed.

13-14. Equipment Required

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

Make the final rigger inspection required by FM 10-500-2/TO13C7-1-5 before the load leaves the rigging site.

CB

RIGGED LOAD DATA

WEIGHT.....18,890 Pounds

MAXIMUM WEIGHT.....20,000 Pounds

HEIGHT.....99 Inches

WIDTH.....108 Inches

LENGTH.....262 Inches

OVERHANG.....Front: 0 Inches
Rear: 22 Inches

CB (from the front edge of platform).....108 Inches

Extraction System (adds 18 inches to length of platform)

Figure 13-17. Vibratory compactor (Model CS-433C) rigged on a type V platform

Table 13-1. Equipment required for rigging vibratory compactor (Model CS-433C) for low-velocity airdrop on a type V platform

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As Required
4030-00-090-5354	Clevis, suspension, 1-in (large)	11
4030-00-067-8562	Clevis, emergency restraints, (med)	6
8305-00-242-3593	Cloth, cotton duck, 60-in	As Required
4020-00-240-2164	Cord, nylon III, 550-lb	As Required
1670-00-434-5787	Coupling, airdrop, extraction force transfer with cable, 20ft	1
	Cover:	
1670-00-360-0328	Clevis, large	1
1670-00-360-0329	Link, type IV	1
8135-00-664-6958	Cushioning material, packaging,cellulose wadding	As Required
8305-00-958-3685	Felt 1/2-inch	As Required
1670-01-183-2678	Leaf, extraction line, (line bag)	2
	Line, extraction:	
1670-01-062-6313	60-ft (3-loop), type XXVI (for C130)	1
1670-01-107-7651	140-ft (3-loop), type XXVI (for C141, C5, and C17)	1
1670-01-064-4452	Line, drogue (C17) 60-ft (1-loop), type XXVI	1
	Suspension:	
1670-00-062-6310	11-ft (4-loop), type XXVI	2
1670-00-062-6307	12-ft (4-loop), type XXVI	2
	Link assembly:	
1670-00-783-2752	Two-point, 5 1/2-in	3
1670-00-783-5988	Type IV	12

Table 13-1. Equipment required for rigging vibratory compactor (Model CS-433C) for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
5315-00-010-4657	Nail, steel wire, common, 6d	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	28 sheets
5530-00-618-8073	Plywood, 3/4-in	2 sheets
5510-00-220-6146	Lumber, 2 by 4-in	As required
	Parachute:	
	Cargo:	
1670-01-016-7841	G-11B	4
	Cargo Extraction	
1670-00-040-8135	28ft	1
1670-01-063-3715	Drogue, 15-ft (C17)	1
	Platform, airdrop, type V, 20ft	1
1670-01-353-8425	Bracket assembly, coupling	1
1670-01-162-2372	Clevis assembly, type V	24
1670-01-353-8424	Extraction bracket assembly	1
1670-01-247-2389	Suspension link	4
1670-01-162-2381	Tandem Link	2
1670-01-097-8816	Release, cargo parachute, M-2	1
	Sling, cargo, airdrop	
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For extension:	
1670-01-062-6314	60-ft (3-loop), type XXVI nylon webbing	4
1670-01-062-6306	3-ft (4-loop), type XXVI nylon webbing	1

Table 13-1. Equipment required for rigging vibratory compactor (Model CS-433C) for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
1670-00-040-8219	Knife, multi, strap, parachute release	2
7510-00-266-5016	Tape, PSA, cloth back, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft	28
	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

CHAPTER 14

RIGGING THE VIBRATORY COMPACTOR (MODEL CS-433P) ON A 20-FOOT, TYPE V PLATFORM FOR LOW-VELOCITY AIRDROP

14-1. Description of Load

The vibratory compactor (Figure 14-1) is a four-cylinder, turbocharged, selfpropelled diesel driven engine, and uses a single sheep-foot drum with an optional leveling blade. This load is rigged on a 20-foot, type V platform with four G-11 cargo parachutes. The rigged weight of the vibratory compactor is 19,147 pounds. It is 262 inches long, 99 inches high, and 108 inches wide, when prepared for rigging.

14-2. Preparing the Platform

Prepare a 20-foot, type V platform using two tandem multi-purpose links, four suspension links and 24 tiedown clevises as shown in Figure 14-2.

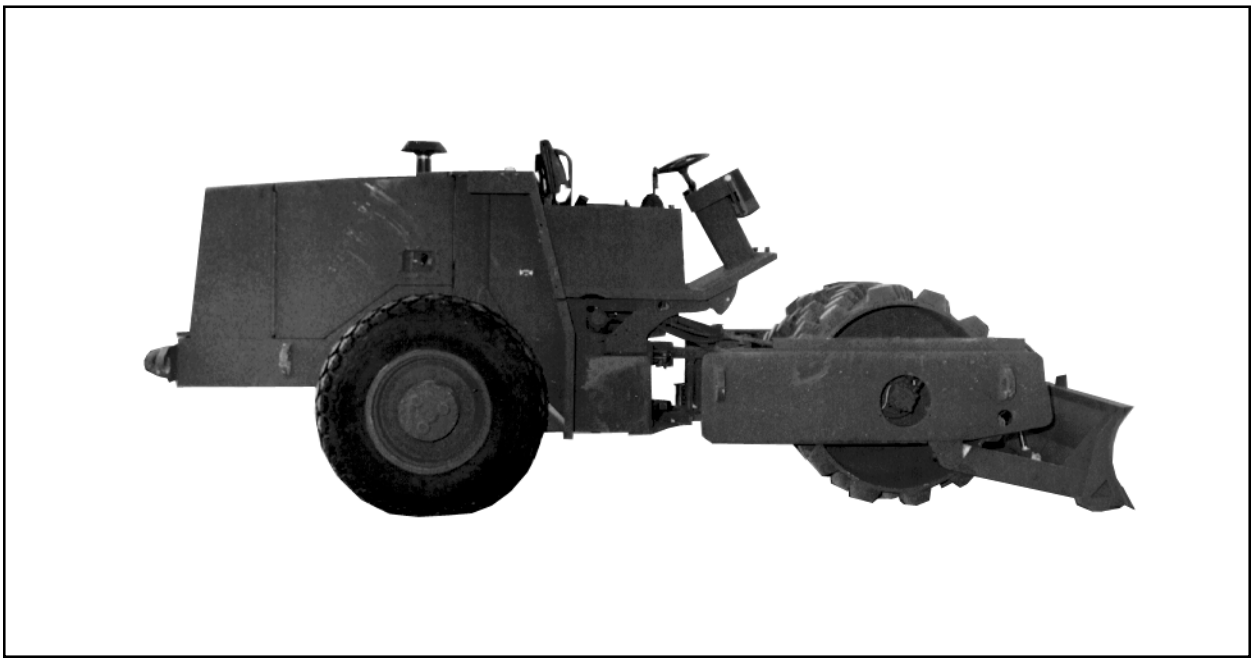
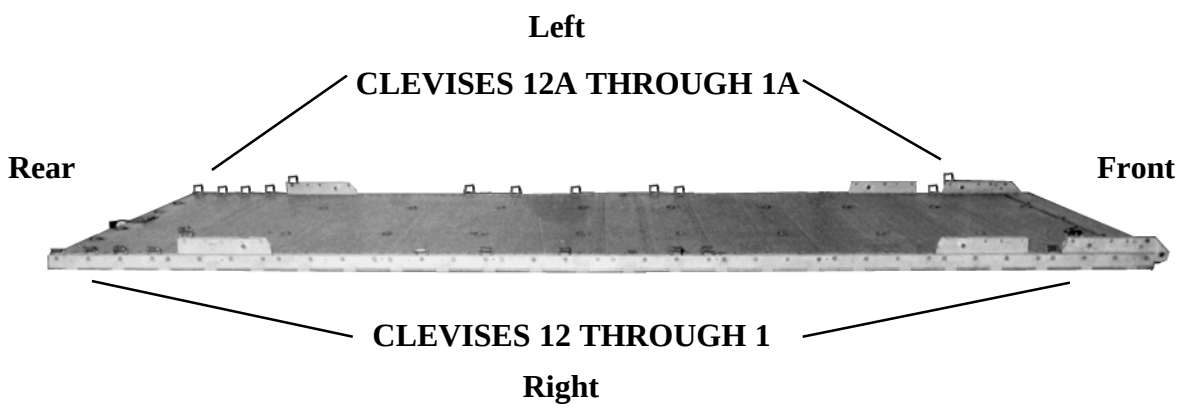


Figure 14-1. Vibratory compactor (Model CS-433P)



Step:

1. Install a tandem multi-purpose link to each plaform side rail using holes 1, 2, and 3.

2. Install a suspension link to each platform side rail using holes 6, 7, and 8.

3. Install a suspension link to each platform side rail using holes 33, 34, and 35.

4. Install a clevis on bushing 4 on each of the front tandem links.

5. Install a clevis on bushing 4 on each of the second suspension links.

6. Starting at the front of each platform side rail, install clevises on the bushings bolted on holes 4, 17, 18, 22, 25, 27, 37, 38, 39 and 40.

7. Starting at the front of the platform number the clevises 1 through 12 on the right side and 1A through 12A on the left side.

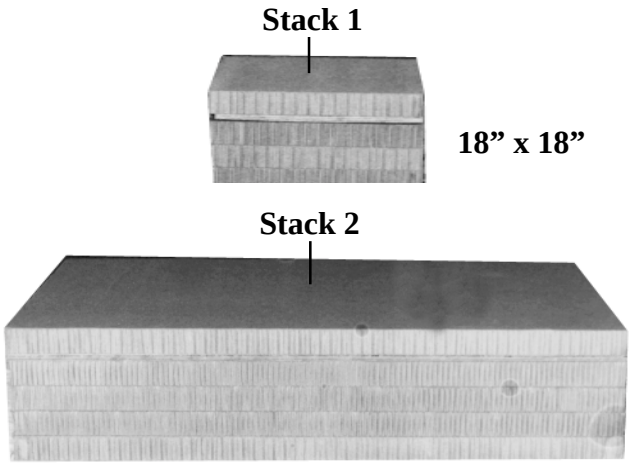
8. Label the tiedown rings according to FM 10-500-2/TO 13C7-1-5.

Note: The nose bumper may or may not be installed. Measurements given in this section are from the front edge of the platform, not the front edge of the nose bumper.

Figure 14-2. Platform prepared

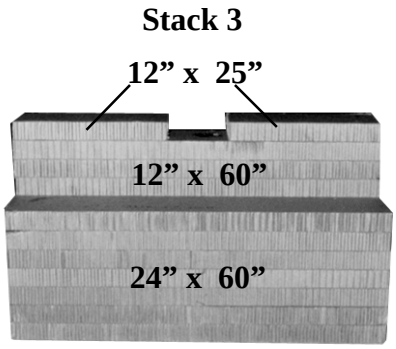
14-3. Preparing and Positioning Honeycomb Stacks

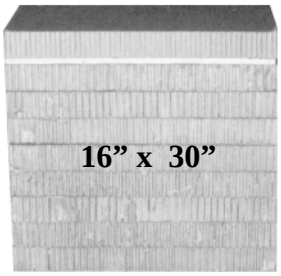
Prepare the honeycomb stacks as shown in Figures 14-3 through 14-5. Position the honeycomb stacks on the platform as shown in Figure 14-6.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	5	18	18	Honeycomb	Glue four pieces of honey-comb together to form a base.
	1	18	18	3/4-inch Plywood	Glue plywood to the base and glue the remaining 18-inch by 18-piece of honey comb on top of the plywood.
2	5	36	66	Honeycomb	Glue four pieces of honey-comb together to form a base.
	1	36	66	3/4-inch Plywood	Glue plywood to the top of the base and glue the remain-ing piece of 36-inch by 66-inch honeycomb to the top of the plywood.

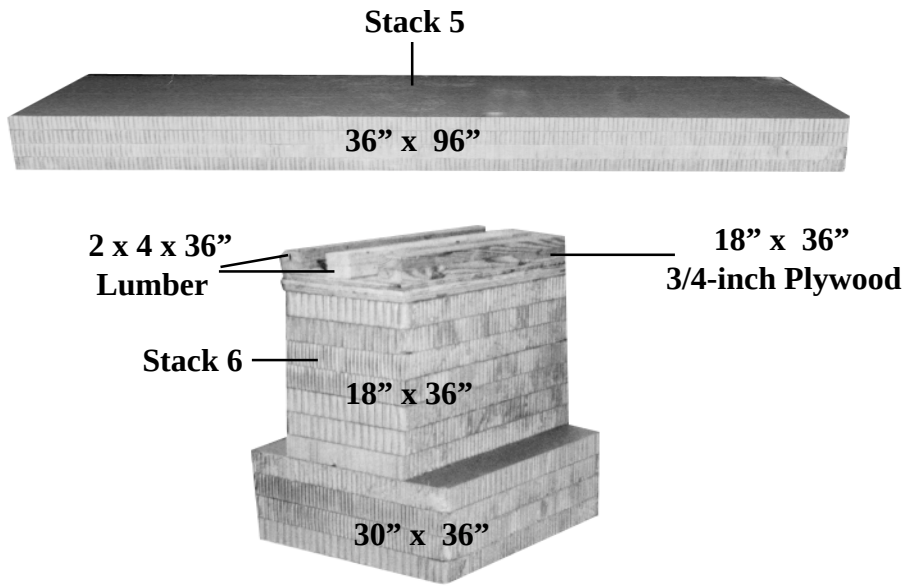
Figure 14-3. Honeycomb stacks 1 and 2 prepared





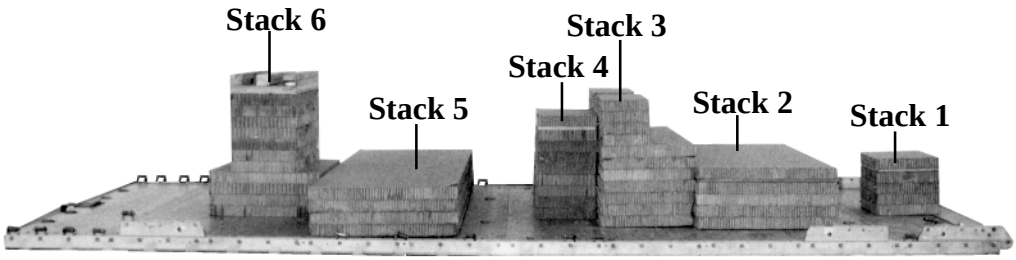
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	7	24	60	Honeycomb	Glue honeycomb together to form a base.
	3	12	60	Honeycomb	Glue pieces of honeycomb to the base aligned on the rear edge.
	2	12	25	Honeycomb	Glue each piece of honey-comb to the outer edge of the 12-inch by 60-inch piece of honeycomb.
4	9	16	30	Honeycomb	Glue eight pieces of honey-comb together to form a base.
	1	16	30	3/4-inch Plywood	Glue the plywood to the top of the base. Glue the re-maning piece of honeycomb to the top of the plywood.

Figure 14-4. Honeycomb stacks 3 and 4 prepared



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	4	36	96	Honeycomb	Glue pieces of honeycomb together to form a base.
6	4	30	36	Honeycomb	Glue pieces of honeycomb together to form a base.
	7	18	36	Honeycomb	Center and glue to base.
	3	18	36	3/4-inch Plywood	Nail three pieces of 3/4-inch plywood together.
	6	2 x 4	36	Lumber	Nail two pieces of lumber to the rear edge of the plywood and two more pieces centered on the plywood. Glue the piece on top of the 18-inch by 36-inch piece of honey-comb.

Figure 14-5. Honeycomb stacks 5 and 6 prepared



Step:

1. Position stack 1 centered and flush with the front edge of the platform and not the nose bumper if present.

2. Position stack 2 centered and 18 inches from stack 1.

3. Position stack 3 centered and flush against stack 2.

4. Position stack 4 centered and flush against stack 3.

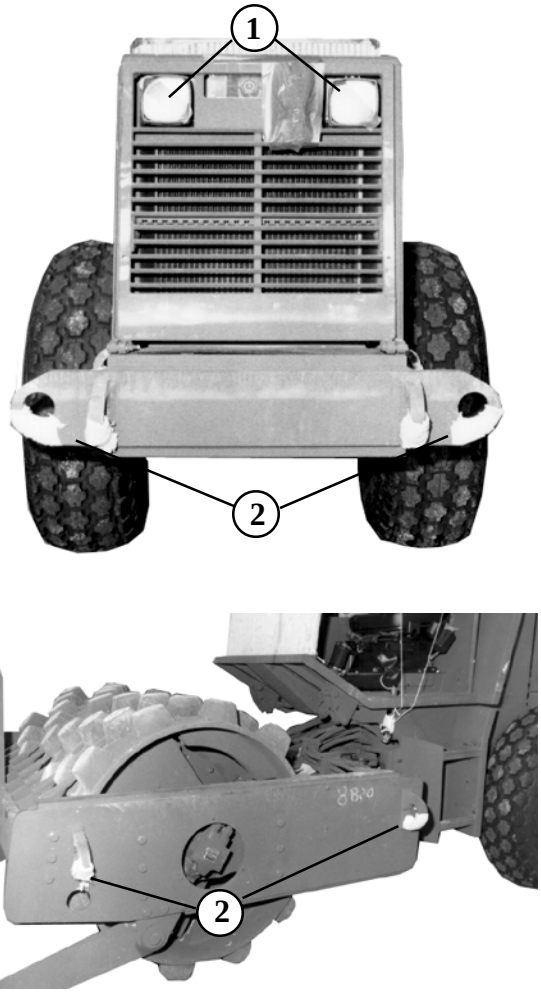
5. Position stack 5 centered and 19 inches from stack 4.

6. Position stack 6 centered and 1 inch from stack 5.

Figure 14-6. Honeycomb stacks positioned on platform

14-4. Preparing and Positioning Vibratory Compactor on Platform

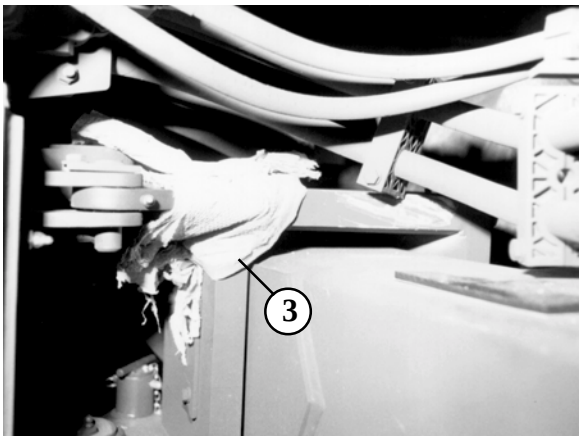
Prepare and position the vibratory compactor on a platform as shown in Figures 14-7 and 14-8.

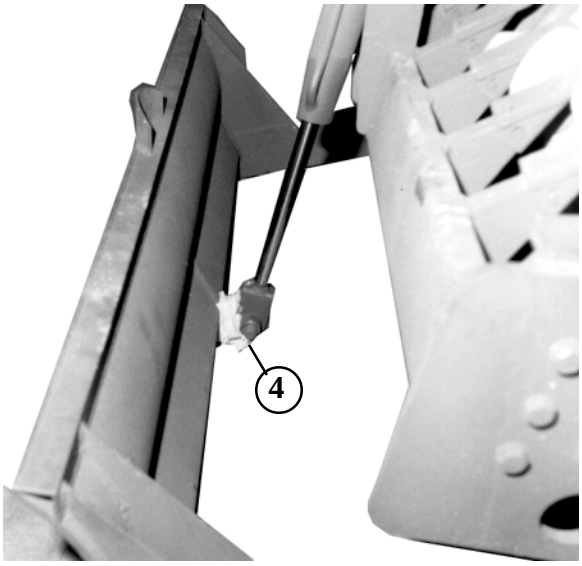


(1) Tape all lights and reflectors.

(2) Tape cellulose wadding to all lashing tiedown points.

Figure 14-7. Vibratory compactor prepared

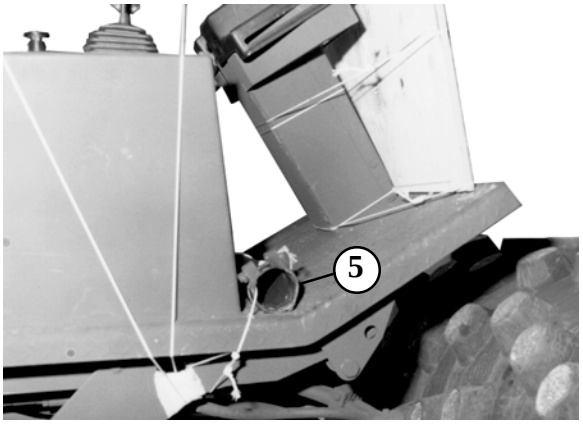


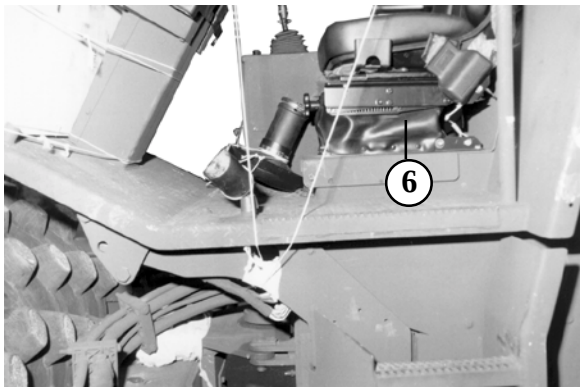


(3) Tape cellulose wadding to the upper pivot arm of the chassis.

(4) Tape cellulose wadding to the hydraulic attaching point of the blade.

Figure 14-7. Vibratory compactor prepared (continued)

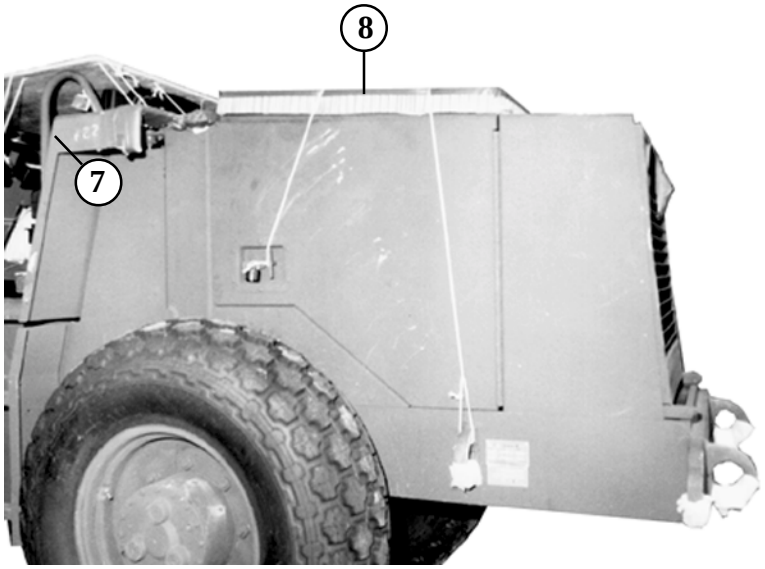




(5) Remove the air-filter and exhaust pipe. Secure them to convenient points in the cab.

(6) Lower the seat and lock it down.

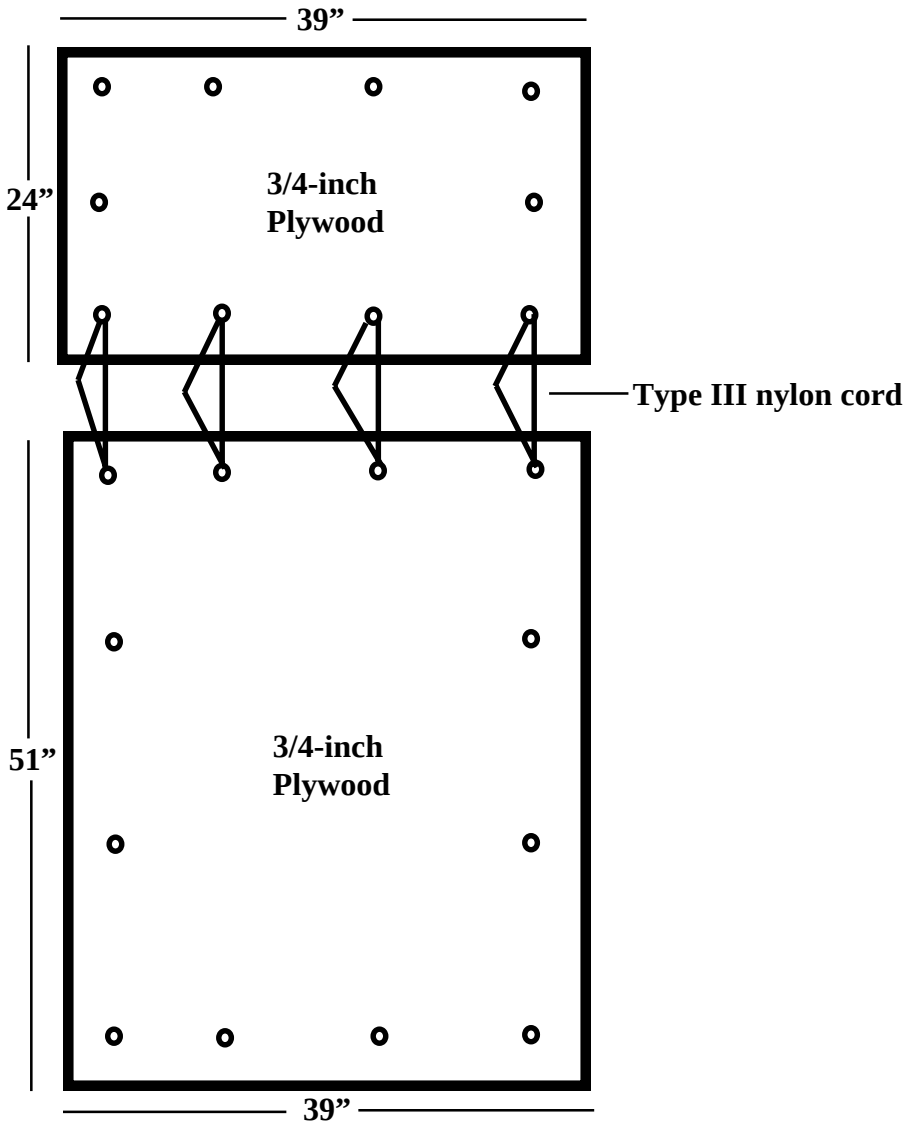
Figure 14-7. Vibratory compactor prepared (continued)



(7) Tape felt on the upper portions of the rear wheel wells where the slings will make contact.

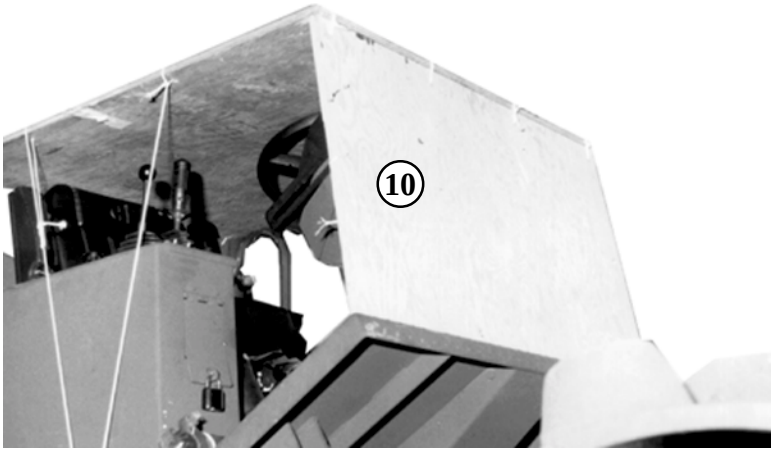
(8) Tape the edges of a 29-inch by 38-inch piece of honeycomb and secure it on top of the engine compartment with type III nylon cord tied to a convenient point on the roller.

Figure 14-7. Vibratory compactor prepared (continued)



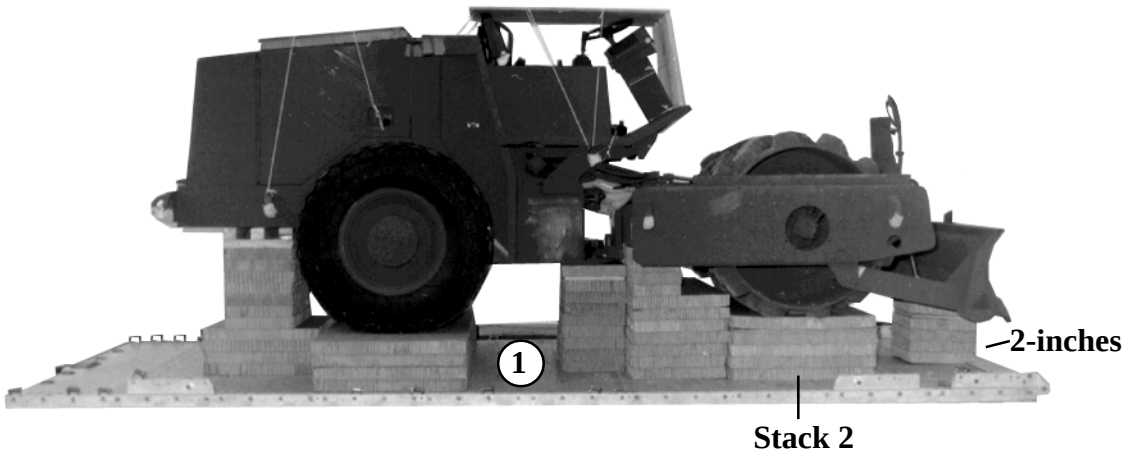
9 Tie a 24-inch by 39-inch piece of 3/4-inch plywood to a 39-inch by 51-inch piece of 3/4-inch plywood using type III nylon cord as shown.

Figure 14-7. Vibratory compactor prepared (continued)



(10) Using 1/2-inch tubular nylon, secure the piece of plywood to the cab of the vibratory compactor to a convenient point on the load.

Figure 14-7. Vibratory compactor prepared (continued)

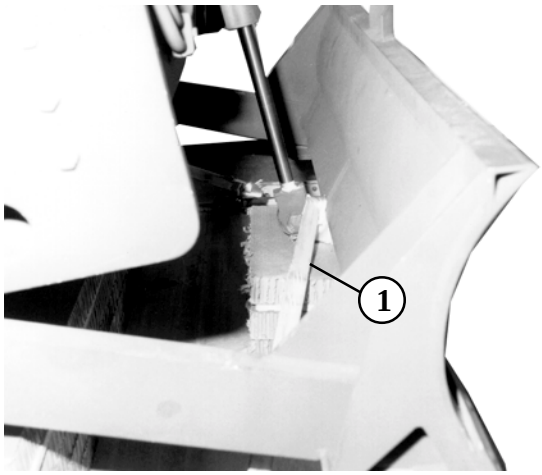


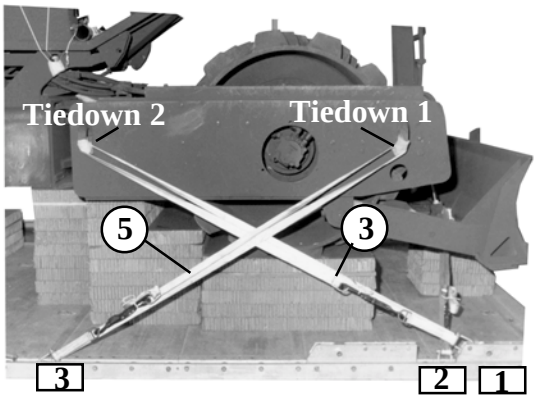
1 Position the vibratory compactor with the roller on honeycomb stack 2 aligning the front edge of the blade 2 inches from the front edge of the platform.

Figure 14-8. Vibratory compactor positioned on platform

14-5. Lashing Vibratory Compactor to the Platform

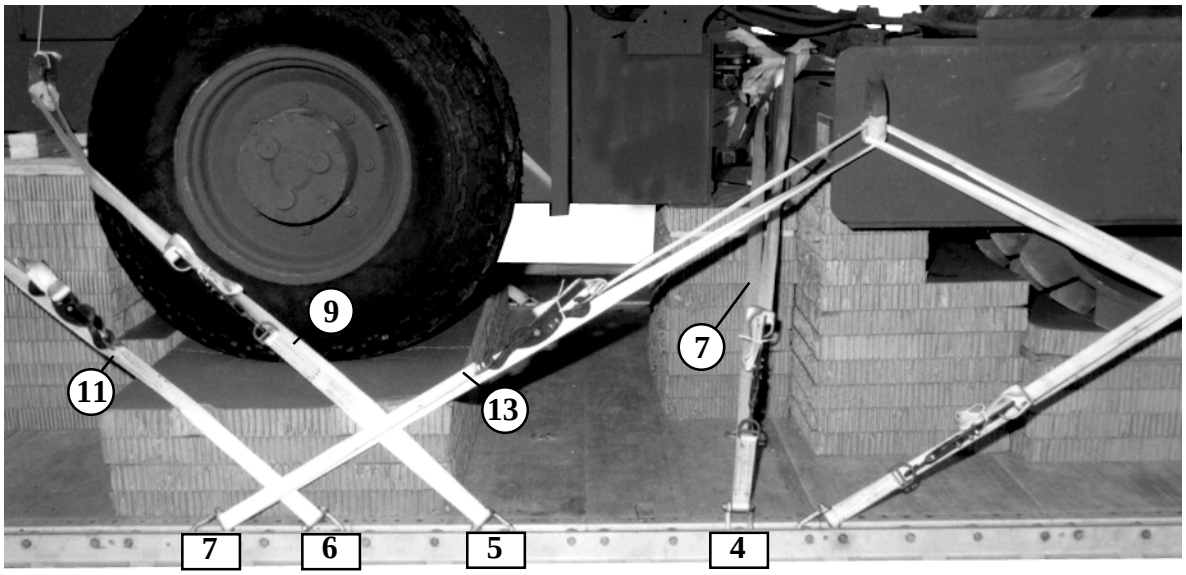
Lash the vibratory compactor to the platform as shown in Figures 14-9 through 14-11 and FM 10-500-2/TO 13C7-1-5.





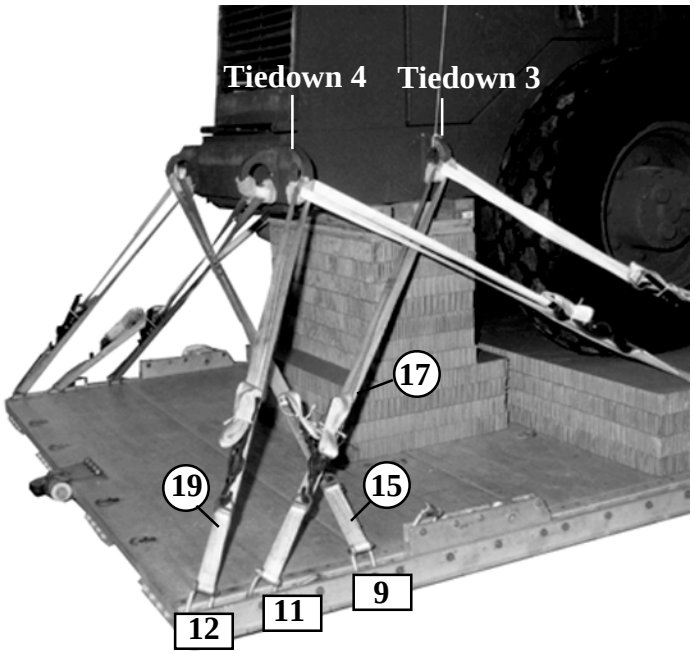
Lashing Number	Clevis Number	Instructions
		Pass lashing:
1	2	Around right hydraulic attaching point of blade.
2	2A	Around left hydraulic attaching point of blade.
3	1	Through tie-down number 2, right side.
4	1A	Through tie-down number 2, left side.
5	3	Through tie-down number 1, right side.
6	3A	Through tie-down number 1, left side.

Figure 14-9. Lashings 1 through 6 installed



Lashing Number	Clevis Number	Instructions
		Pass lashing:
7	4	Around right upper pivot arm of chassis.
8	4A	Around left upper pivot arm of chassis.
9	5	Through tie-down number 3, right side.
10	5A	Through tie-down number 3, left side.
11	6	Through tie-down number 4, right side.
12	6A	Through tie-down number 4, left side.
13	7	Through tie-down number 2, right side
14	7A	Through tie-down number 2, left side.

Figure 14-10. Lashings 7 through 14 installed

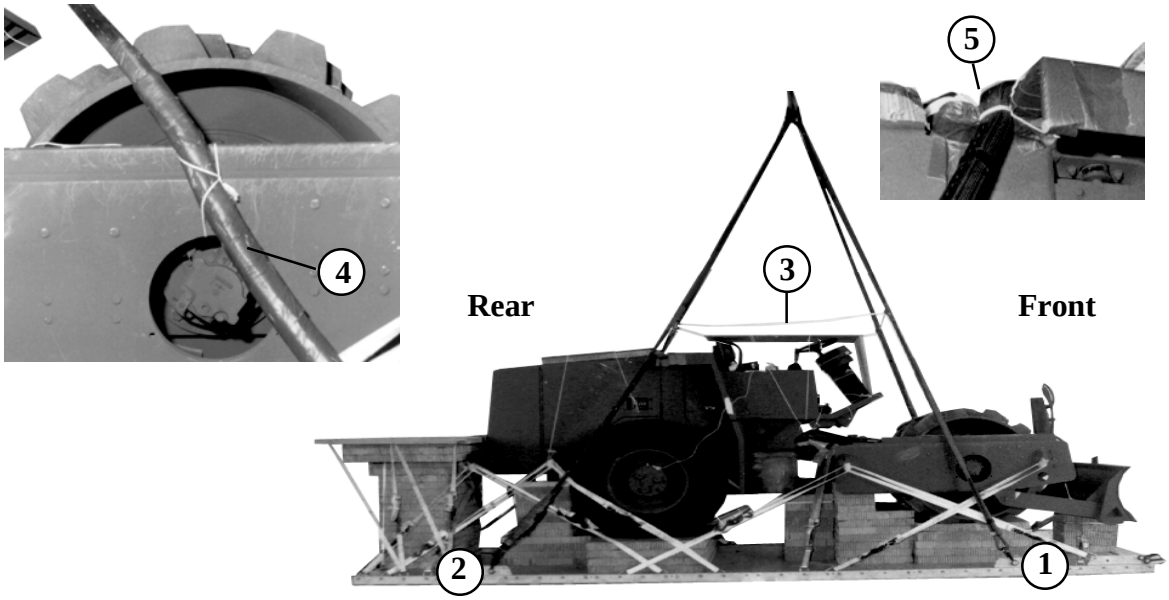


Lashing Number	Clevis Number	Instructions
		Pass lashing:
15	9	Through rear tie-down, left side.
16	9A	Through rear tie-down, right side.
17	11	Through clevis 11 to tie-down number 3, left side.
18	11A	Through clevis 11A to tie-down number 3, right side.
19	12	Through clevis 12 to tie-down number 4, left side.
20	12A	Through clevis 12A to tie-down number 4, right side.

Figure 14-11. Lashings 15 through 20 installed

14-6. Installing and Safetying Suspension Slings and Deadman's Tie

Install and safety four 16-foot (4-loop), type XXVI nylon webbing slings to the tandem links as shown in Figure 14-12.



(1) Place a large clevis in one end of a 16-foot (4-loop), type XXVI nylon suspension sling. Attach another large clevis to the front right and front left suspension links. Attach the large clevises together and safety-tie them with type III nylon cord in an hourglass configuration.

(2) Place a 5 1/2-inch two point link in one end of a 16-foot (4-loop), type XXVI nylon suspension sling. Pass a 3-foot (4-loop), type XXVI nylon sling through the two point link and fold in half. Attach both running ends of the 3-foot sling to a large clevis. Attach the large clevis to the rear right and rear left suspension links. Tape a piece of felt to the 5 1/2-inch two point link.

(3) Raise the slings and install the deadman's tie on the front and rear sets of slings IAW FM 10-500-2/TO 13C7-1-5.

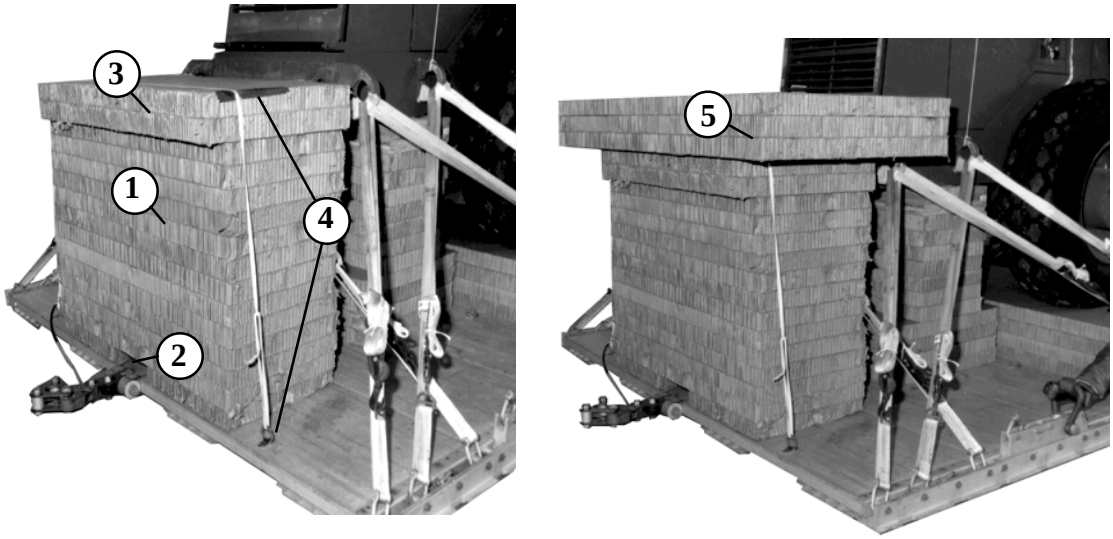
(4) Tape a piece of felt on the front slings, starting at a point 18 inches above the clevis to 18 inches above the roller and tie to a conveniewnt point.

(5) Tie the rear slings to the padded and taped portions of the wheel well using type III nylon cord.

Figure 14-12. Suspension slings and deadman's tie installed

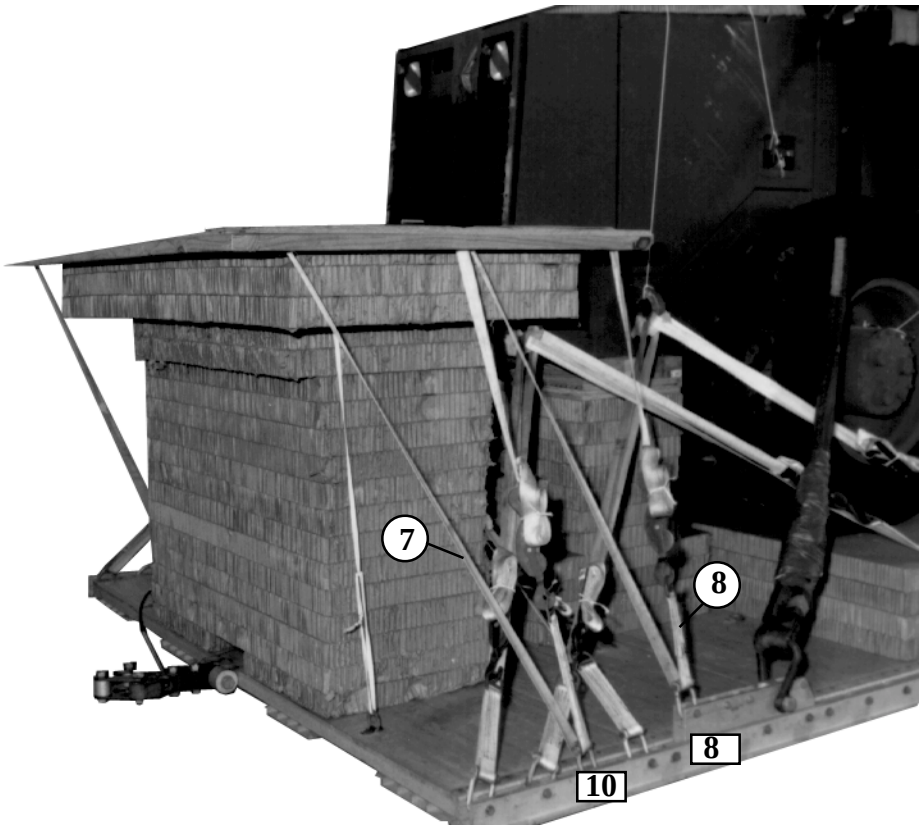
14-7. Building and Positioning Parachute Stowage Platform

Build and position the parachute stowage platform as shown in Figure 14-13.



1. Cut and glue 13 layers of 23-inch by 50-inch pieces of honeycomb together to form the base on the platform.
2. Cut a channel in the bottom layer of honeycomb that will allow the extraction bracket to fit under it.
3. Cut and glue two layers of 26-inch by 50-inch pieces of honeycomb together on top of the base and flush with the front edge.
4. Tape the outer edges of the 26-inch by 50-inch piece of honeycomb and position it on the platform centered and flush with the rear edge. Secure it to the platform with 1/2-inch tubular nylon webbing to deck-rings 10A and 10D.
5. Cut and glue three layers of 36-inch by 71-inch pieces of honeycomb centered on top of the base.

Figure 14-13. Parachute stowage platform constructed and positioned



(6) Contsruct a parachute stowage platform as shown in Figure 13-13, step 6.

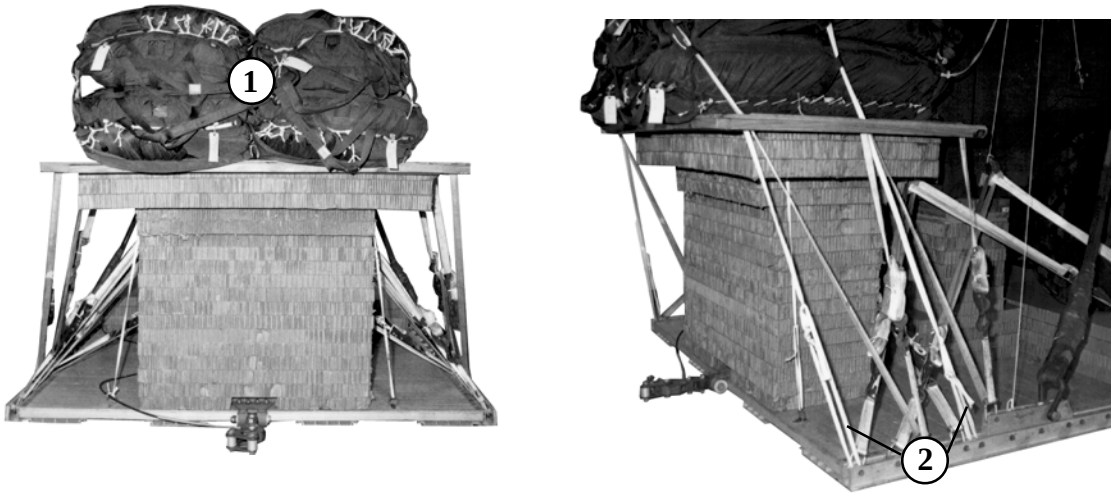
(7) Place the parachute stowage platform on the honeycomb stack. Secure it by routing a 15-foot lashing from clevis 10 to the front right hole to the center hole. Secure with a load binder. Route a 15-foot lashing from clevis 10A to the front left hole to the center hole and secure with a loadbinder.

(8) Route a 15-foot lashing from clevis 8 to the center hole to the rear hole and secure with a load binder. Route a 15-foot lashing from clevis 8A to the center hole to the rear hole and secure with a loadbinder.

Figure 14-13. Parachute stowage platform constructed and positioned (continued)

14-8. Installing Cargo Parachutes

Install four G-11 cargo parachutes on the load according to FM 10-500-2/ TO 13C7-1-5 and as shown in Figure 14-14.

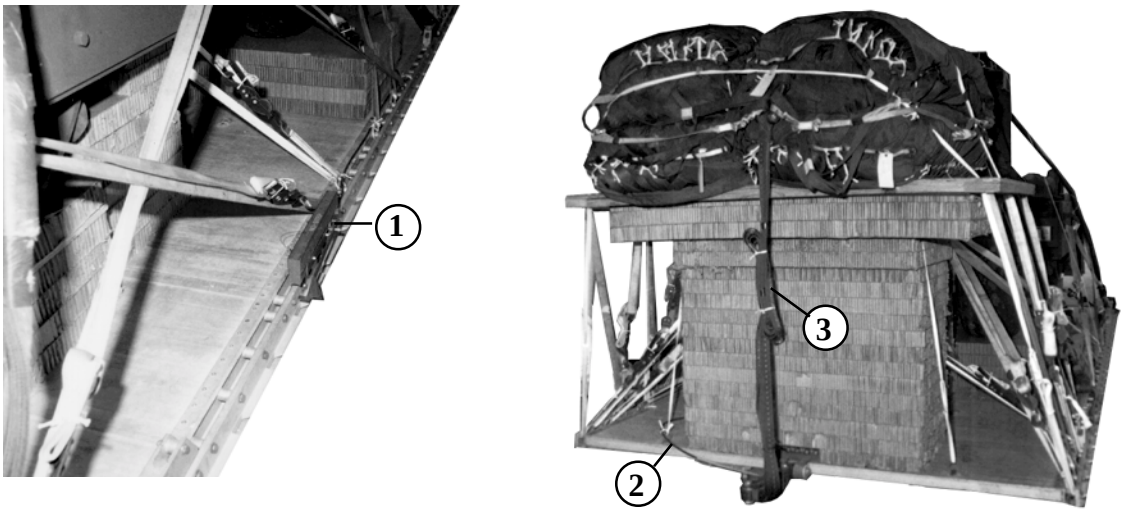


1. Prepare and stow four G-11 cargo parachutes in accordance with FM 10-500-2/ TO 13C7-1-5.
2. Restrain the parachutes using bushings 40, 40A, 36, and 36A on the platform.

Figure 14-14. Parachutes stowed

14-9. Installing Extraction System

Install the EFTC system according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 14-15.

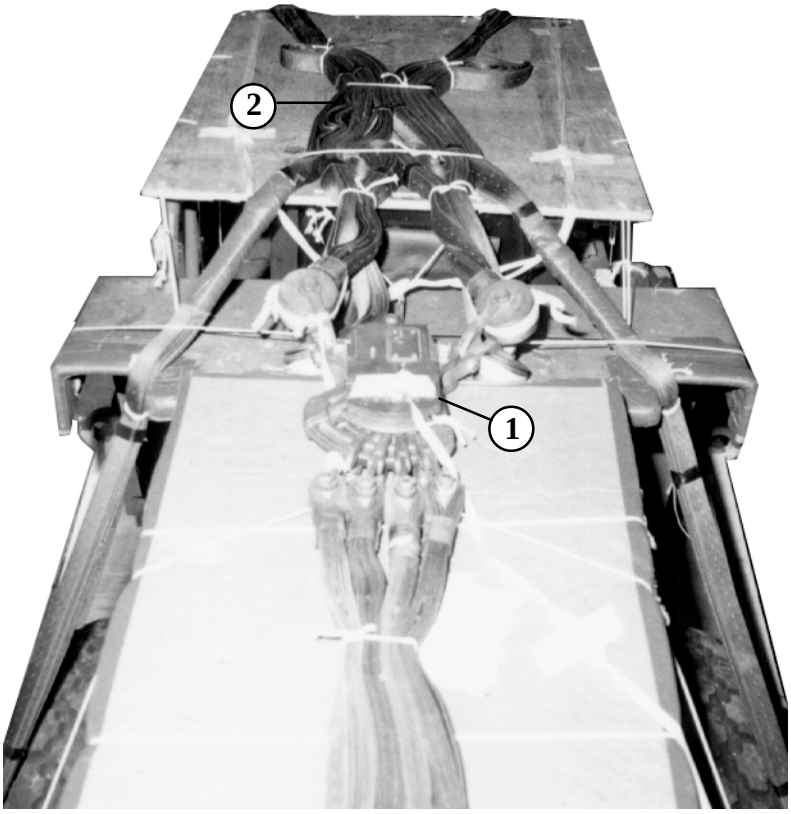


1. Install the components of the extraction force transfer coupling (EFTC) according to FM 10-500-2/TO13C7-1-5. Use the rear mounting holes for the EFTC bracket.
2. Secure a 16-foot EFTC cable with type I, 1/4-inch cotton webbing to a convenient point on the platform.
3. Attach a 9-foot (2-loop), type XXVI nylon sling to be used as a deployment line.

Figure 14-15. EFTC installed

14-10. Installing Parachute Release

Install an M-2 cargo parachute release according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 14-16.



(1) Attach the suspension slings and the riser extensions to the M-2 release according to FM 10-500-2/TO 13C7-1-5. Secure the release to the platform with type III nylon cord.

(2) S-fold the suspension slings and tie the folds with type I, 1/4-inch cotton webbing.

Figure 14-16. M-2 release installed

14-11. Installing Provisions for Emergency Restraints

Select and install provisions for emergency restraints according to the emergency aft restraint requirements table in FM 10-500-2/TO 13C7-1-5.

14-12. Placing Extraction Parachute

Select the extraction parachute and extraction line needed using the extraction line requirements table in FM 10-500-2/TO 13C7-1-5. Place the extraction parachute and extraction line on the load for installation in the aircraft.

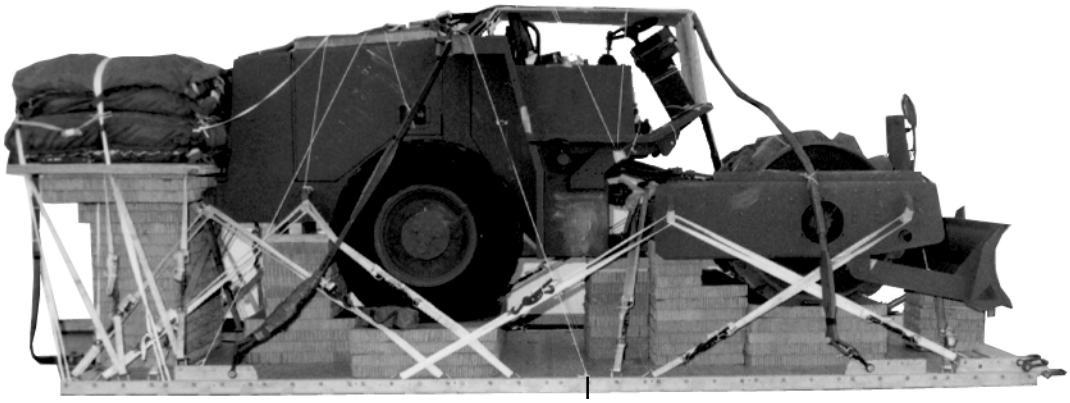
14-13. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 14-17.

14-14. Equipment Required

Use the equipment list in Table 14-1 to rig this load.

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.....19,147 Pounds

MAXIMUM WEIGHT.....21,000 Pounds

HEIGHT.....99 Inches

WIDTH.....108 Inches

LENGTH..... 262 Inches

OVERHANG.....Front: 0 Inches
Rear: 22 Inches

CB (from the front of platform).....108 inches

Extraction System (adds 18 inches to length of platform)

Figure 14-17. Vibratory compactor (model CS-433P) rigged on a type V platform

Table 14-1. Equipment required for rigging vibratory compactor (Model CS-433P) for low-velocity airdrop on a type V platform

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
4030-00-090-5354	Clevis, suspension, 1-in (large)	5
4030-00-067-8562	Clevis, emergency restraints, (med)	6
8305-00-242-3593	Cloth, cotton duck, 60-in	As required
4020-00-240-2164	Cord, nylon III, 550-lb	As required
1670-00-434-5787	Coupling, airdrop, extraction force transfer with cable, 20ft	1
	Cover:	
1670-00-360-0328	Clevis, large	1
1670-00-360-0329	Link, type IV	1
8135-00-664-6958	Cushioning material, packaging,cellulose wadding	As required
8305-00-958-3685	Felt 1/2-inch	As required
1670-01-183-2678	Leaf, extraction line, (line bag)	2
	Line, extraction:	
1670-01-062-6313	60-ft (3-loop), type XXVI (for C130)	1
1670-01-107-7651	140-ft (3-loop), type XXVI (for C141, C5, and C17)	1
1670-01-064-4452	Line, drogue (C17) 60-ft (1-loop), type XXVI	1
	Suspension:	
1670-00-062-6310	12-ft (4-loop), type XXVI	2
1670-00-062-6310	11-ft (4-loop), type XXVI	2
	Link assembly:	
1670-00-783-5988	Type IV	2
1670-00-783-2752	Two-point, 5 1/2-in	3

Table 14-1. Equipment required for rigging vibratory compactor (Model CS-433P) for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
5315-00-010-4657	Nail, steel wire, common, 6d	As required
1670-00-753-3928	Pad, energy-dissipating (honeycomb)	28 sheets
5530-00-618-8073	Plywood, 3/4-in	2 sheets
5510-00-220-6146	Lumber, 2 by 4-in	As required
	Parachute:	
	Cargo:	
1670-01-016-7841	G-11B	4
	Cargo Extraction	
1670-00-040-8135	28ft	1
1670-01-063-3715	Drogue, 15-ft (C17)	1
	Platform, airdrop, type V, 20ft	1
1670-01-353-8425	Bracket assembly, compoent, EFTC	1
1670-01-162-2372	Clevis assembly, type V	24
1670-01-353-8424	Extraction bracket assembly	1
1670-01-247-2389	Suspension link	4
1670-01-162-2381	Tandem Link	2
1670-01-097-8816	Release, cargo parachute, M-2	1
	Sling, cargo, airdrop	
	Suspension and lifting:	
1670-01-062-6308	16-ft (4-loop),type XXVI nylon webbing	4
	For deployment:	
1670-01-062-6304	9-ft (2-loop), type XXVI nylon webbing	1
	For extension:	
1670-01-062-6314	60-ft (3-loop), type XXVI nylon webbing	4
1670-01-062-6306	3-ft (4-loop), type XXVI nylon webbing	1

Table 14-1. Equipment required for rigging vibratory compactor (Model CS-433P) for low-velocity airdrop on a type V platform (continued)

National Stock Number	Item	Quantity
1670-01-062-6305	Link, assembly, coupling, 3-point	2
5340-00-040-8219	Knife, multi, strap, parachute release	2
7510-00-266-5016	Tape, PSA, cloth back, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft	28
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required
8305-00-263-3598	Type VIII, OD	As required