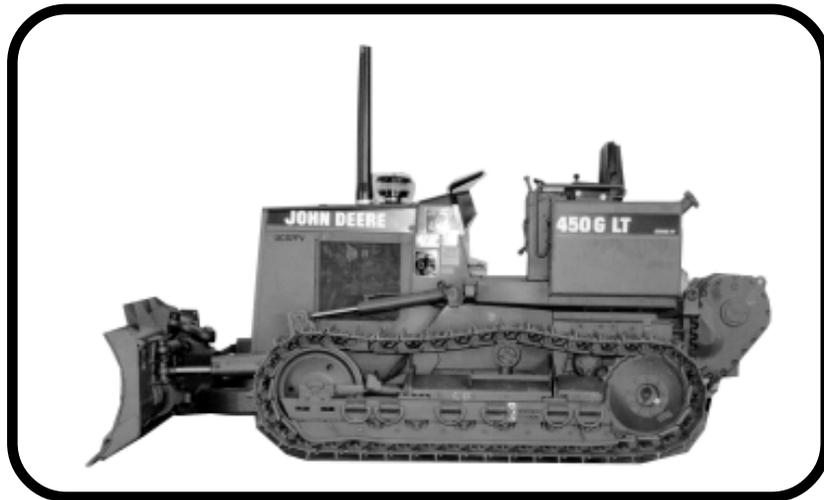


AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING TRACTORS AND TRACTOR-DOZERS



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**AIRDROP OF SUPPLIES AND EQUIPMENT:
RIGGING TRACTORS AND TRACTOR-DOZERS**

This change adds the procedures for rigging the John Deere 450G LT full-tracked commercial bulldozer on a 16-foot, Type V platform for low-velocity airdrop.

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AIRDROP OF SUPPLIES AND EQUIPMENT:

RIGGING TRACTORS AND TRACTOR-DOZERS

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HEADQUARTERS
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AIRDROP OF SUPPLIES AND EQUIPMENT: RIGGING TRACTORS AND TRACTOR-DOZERS

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PREFACE

SCOPE

This manual tells and shows how to prepare and rig the T-3 tractor-dozer for low-velocity or LAPE airdrop from a C-130 aircraft and low-velocity airdrop from a C-141 aircraft. The D-5B (Type I) and D-5BS (Type II) tractor-dozers are rigged for LV and LAPE airdrop from a C-130 aircraft and LV airdrop from a C-141 aircraft. The D-5 full-tracked tractor and the D-5A full-tracked tractor with sectionalization kit are rigged for LV airdrop from a C-130 aircraft. The D-5 full-tracked tractor is also rigged for LAPE airdrop from a C-130 aircraft. The D-5 and D-5A full-tracked tractors cannot be airdropped from a C-141 aircraft. The Case 1150 full-tracked crawler tractor can be rigged for LV and LAPE airdrops from only a C-130 aircraft with a tail number of 62-1784 or higher. It is also rigged for LV airdrop from a C-141 aircraft. The M450 full-tracked crawler tractor is rigged for LV and LAPE airdrops from a C-130 aircraft. It is also rigged for LV airdrop from a C-141 aircraft. The D-6 tractor is rigged for LV airdrop from a C-130 aircraft. It cannot be airdropped from a C-141 aircraft. The John Deere 450G LT full-tracked commercial bulldozer is rigged for LV airdrop from a C-130, C-141, C-5, and C-17 aircraft.

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

CHAPTER 1

INTRODUCTION

1-1. Description of Items

The description and unrigged data for the items covered in this manual are described below:

a. T-3 Tractor Dozer. The T-3 tractor-dozer weighs 16,620 pounds. This weight is reducible to 16,160 pounds with the ROPS removed. The tractor-dozer is 158 inches in length. Its width is 96 inches, and its height is 106 inches (reducible to 71 inches). The accompanying load is a swing fire heater. It is 35 inches long, 12 inches high, and 8 inches wide. The swing fire heater weighs 90 pounds when it is prepared.

b. D-5B and D-5BS Tractor-Dozers. The unrigged D-5B and D-5BS tractor-dozers are described below.

(1) D-5B, type I (nonsectionalized). The type I tractor-dozer weighs 31,350 pounds with 3/4 tank of fuel. The weight of the tractor-dozer is reducible to 30,105 pounds with the ROPS removed. The tractor-dozer is 225 inches in length. Its width is 104 inches with the blade angled, and its height is 121 inches (reducible to 82 inches).

(2) D-5BS, type II (sectionalized). The type II tractor-dozer weighs 33,310 pounds with 1/2 tank of fuel. The weight of the tractor-dozer is reducible to 30,570 pounds with the ROPS and the sectionalization kit removed. All other dimensions are the same as those of the type I tractor-dozer.

c. D-5 and D-5A Full-Track Tractors. The unrigged D-5 and D-5A full-track tractors are described below.

(1) D-5 (nonsectionalized). The D-5 tractor weighs 24,815 pounds. The tractor is 188 inches in length. Its width is 96 inches, and its height is 107 inches (reducible to 78 inches).

(2) D-5A (sectionalized). The dimensions for this tractor are the same as those of the D-5 (nonsectionalized) tractor.

d. Case 1150 Full-Track Crawler Tractor. The Case 1150 tractor weighs 22,760 pounds. The weight is reducible to 21,890 pounds. The tractor is 191 inches in length. Its width is 120 inches (reducible to 110 inches), and its height is 113 1/2 inches (reducible to 78 inches).

e. M450 Full-Track Crawler Tractor. The M450 tractor weighs 9,900 pounds. The tractor is 140 inches in length. Its width is 78 inches, and its height is 88 inches (reducible to 67 inches).

f. D-6 Tractor. The D-6 tractor weighs 15,975 pounds. The tractor is 179 inches in length. Its width is 96 inches, and its height is 77 inches.

g. John Deere 450G Lt Full-Track Commercial Bulldozer. The John Deere 450G Lt bulldozer weighs 18,080 pounds. The dozer is 180 1/3 inches in length. Its width is 97 inches and its height is 108 inches (reducible to 77 inches with ROPS removed and the seat back lowered).

1-2. Special Considerations

Special considerations for this manual are given below.

a. The loads covered in this manual may include hazardous materials as defined in AFJMAN 24-204/TM 38-250. If included, the hazardous materials must be packaged, marked, and labeled as required by AFJMAN 24-204/TM-38-250.

b. A copy of this manual must be available to the joint airdrop inspectors during the before- and after-loading inspections.

CHAPTER 8

**RIGGING THE TYPE I, D-5B TRACTOR-DOZER
ON THE TYPE V PLATFORM**

Section I

**RIGGING THE TRACTOR-DOZER FOR
LOW-VELOCITY AIRDROP**

8-1. Description of Load

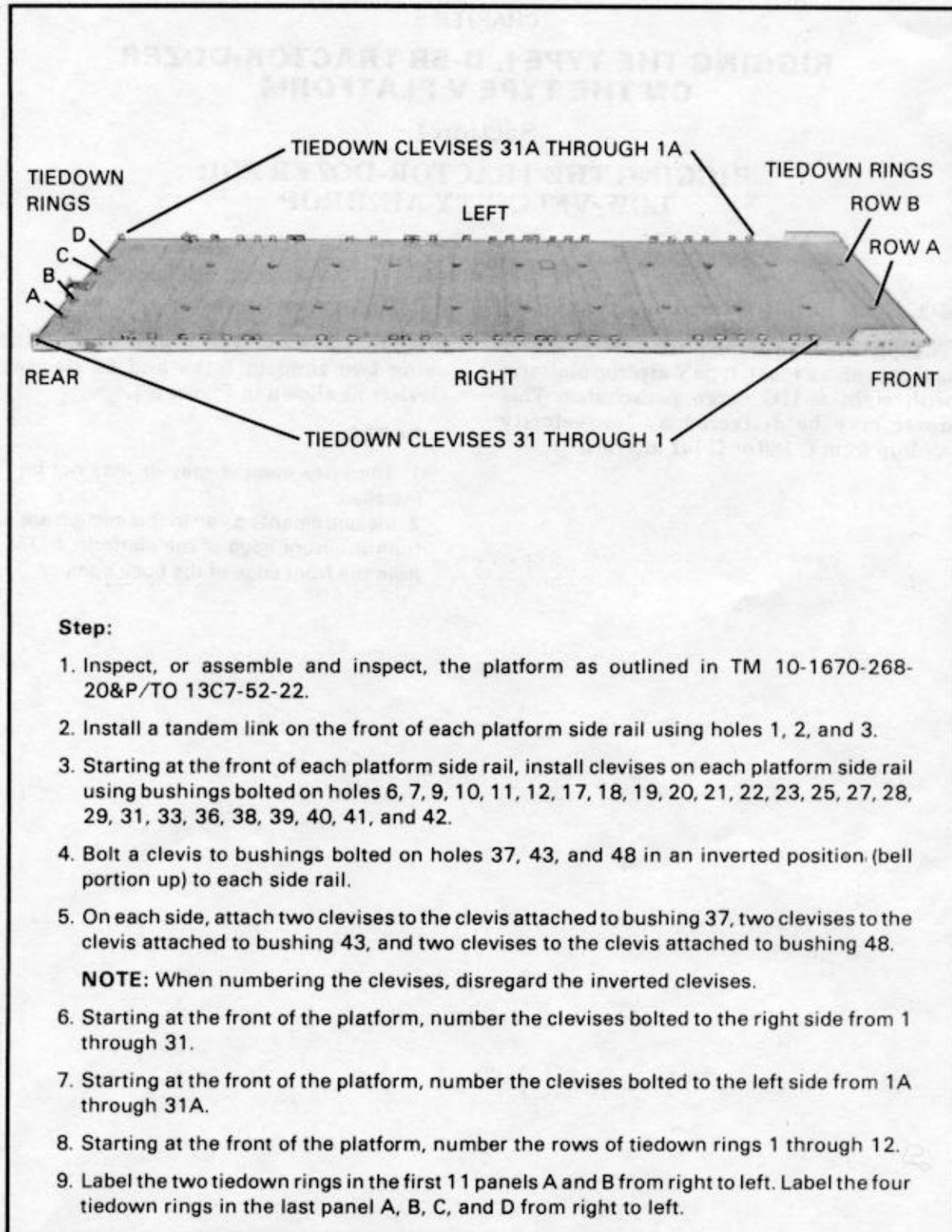
The type I (nonsectional), D-5B tractor-dozer is rigged on a 24-foot, type V airdrop platform with eight G-11C cargo parachutes. This dozer may be delivered by low-velocity airdrop from C-130 or C-141 aircraft.

8-2. Preparing Platform

Prepare a 24-foot, type V airdrop platform using two tandem links and 68 tiedown clevises as shown in Figure 8-1.

NOTES:

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



Step:

1. Inspect, or assemble and inspect, the platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link on the front of each platform side rail using holes 1, 2, and 3.
3. Starting at the front of each platform side rail, install clevises on each platform side rail using bushings bolted on holes 6, 7, 9, 10, 11, 12, 17, 18, 19, 20, 21, 22, 23, 25, 27, 28, 29, 31, 33, 36, 38, 39, 40, 41, and 42.
4. Bolt a clevis to bushings bolted on holes 37, 43, and 48 in an inverted position. (bell portion up) to each side rail.
5. On each side, attach two clevises to the clevis attached to bushing 37, two clevises to the clevis attached to bushing 43, and two clevises to the clevis attached to bushing 48.

NOTE: When numbering the clevises, disregard the inverted clevises.

6. Starting at the front of the platform, number the clevises bolted to the right side from 1 through 31.
7. Starting at the front of the platform, number the clevises bolted to the left side from 1A through 31A.
8. Starting at the front of the platform, number the rows of tiedown rings 1 through 12.
9. Label the two tiedown rings in the first 11 panels A and B from right to left. Label the four tiedown rings in the last panel A, B, C, and D from right to left.

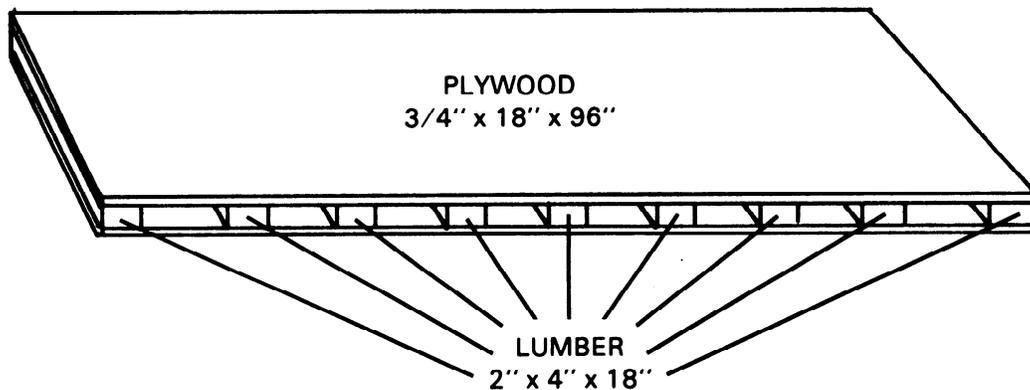
Figure 8-1. Platform prepared

8-3. Building and Positioning Honeycomb Stacks

Build and position the honeycomb stacks as described below.

- a. Build the load spreader for the honeycomb stacks as described in Figure 8-2.

NOTE: This drawing is not drawn to scale.



Step:

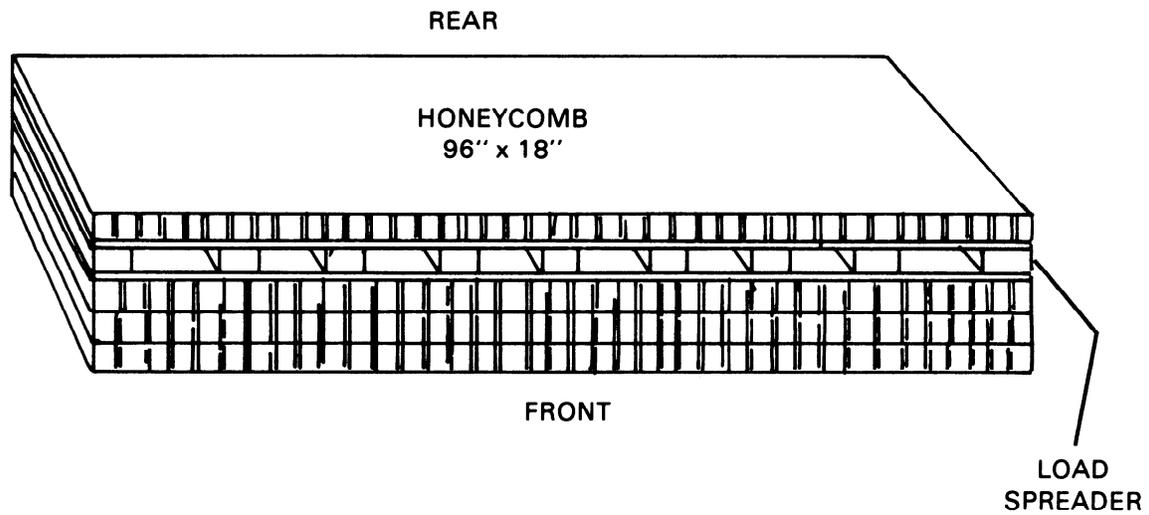
1. Use two 3/4- by 18- by 96-inch pieces of plywood and nine 2- by 4- by 18-inch pieces of lumber.
2. Nail one piece of lumber to each end of one piece of plywood. Space the other seven pieces evenly, and nail them in place.
3. Nail the other piece of plywood to the lumber.

NOTE: Use eightpenny nails.

Figure 8-2. Load spreader prepared

b. Build the honeycomb stacks as shown in Figures 8-3 through 8-8.

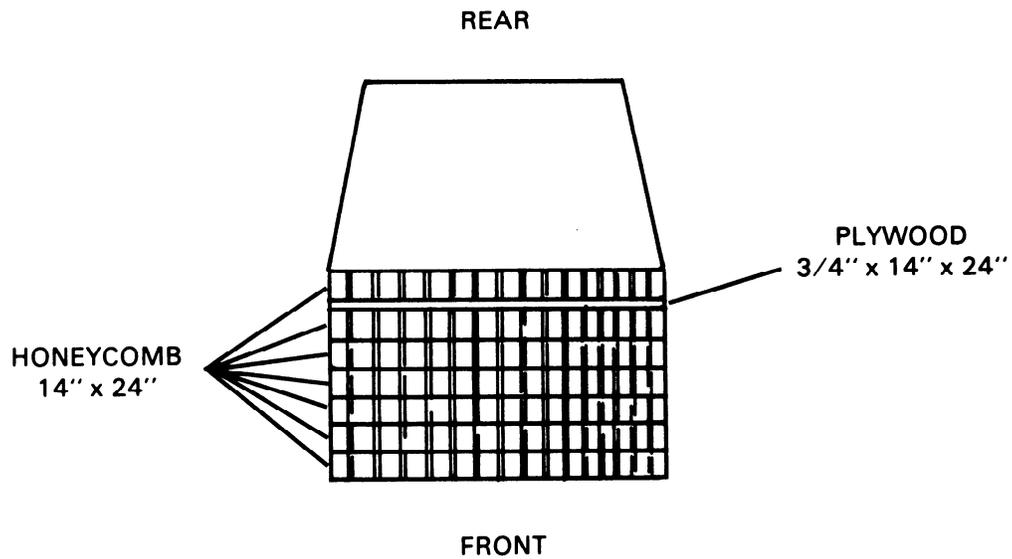
NOTE: This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	4 1	96 96	18 18	Honeycomb Load spreader	Form stack. Place load spreader under the top piece of honeycomb.

Figure 8-3. Honeycomb stack 1 prepared

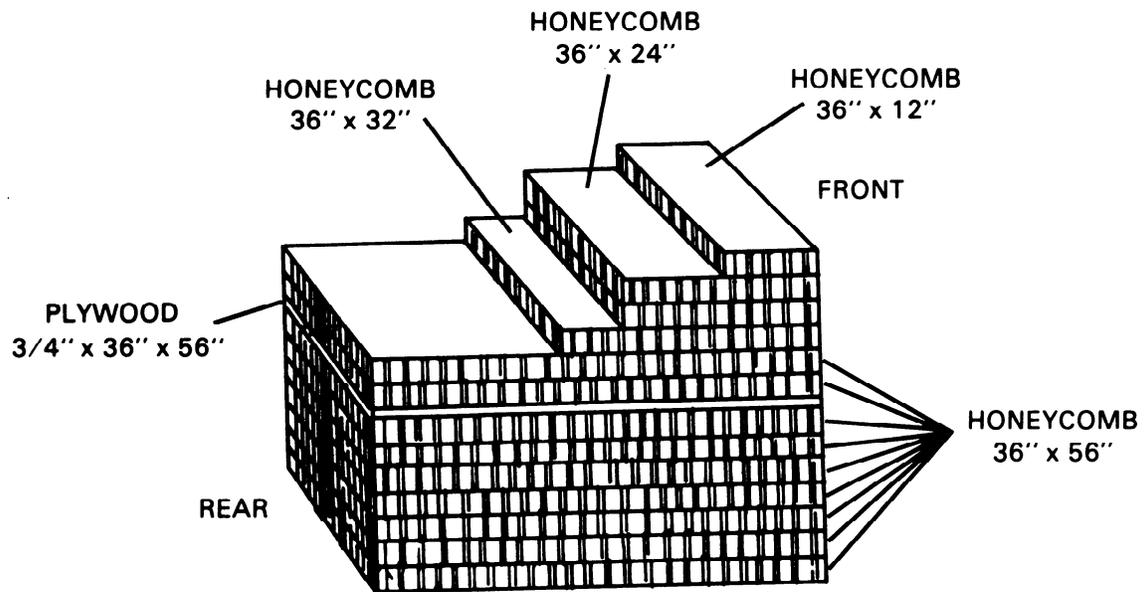
NOTE: This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2	7	14	24	Honeycomb	Form stack.
	1	14	24		
3	7	14	24	Honeycomb	Same as stack 2.
	1	14	24		

Figure 8-4. Honeycomb stacks 2 and 3 prepared

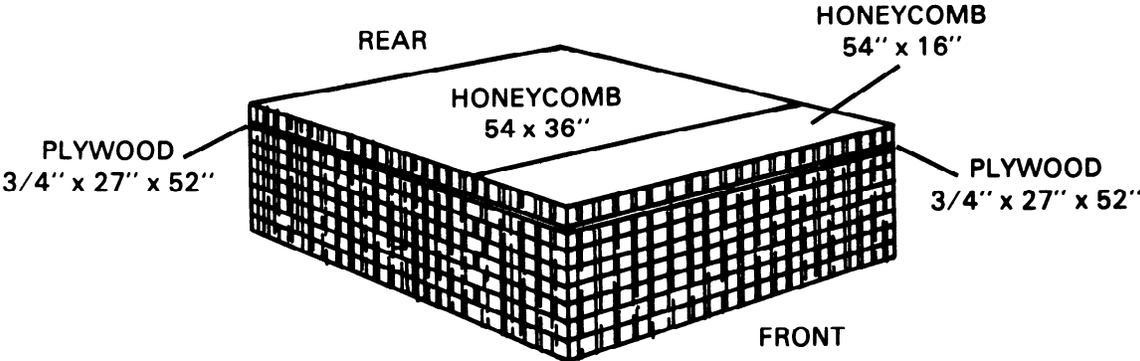
NOTE: This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4	9	36	56	Honeycomb	Form base.
	1	36	56	3/4-inch plywood	Place plywood under eighth piece of 36- by 56-inch honeycomb.
	1	36	32	Honeycomb	Place honeycomb on top of the base, flush with the front edge.
	2	36	24	Honeycomb	Place honeycomb on top of the 36- by 32-inch honeycomb, flush with the front edge.
	1	36	12	Honeycomb	Place honeycomb on top of the 36- by 24-inch honeycomb, flush with the front edge.

Figure 8-5. Stack 4 prepared

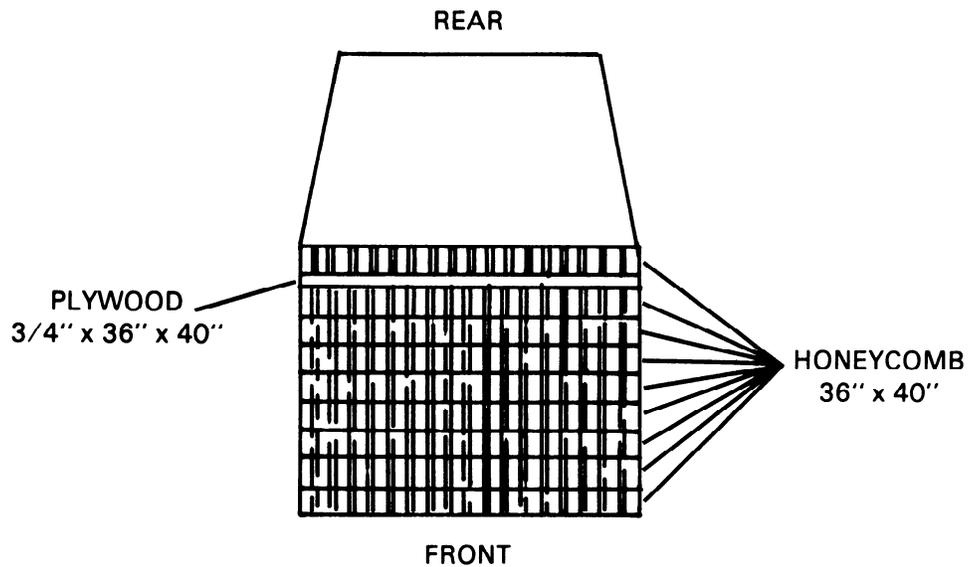
- NOTES:**
1. This drawing is not drawn to scale.
 2. Each layer of honeycomb has one 54- by 36-inch piece of honeycomb and one 54- by 16-inch piece of honeycomb. Alternate the ends of the stack with the 54- by 16-inch piece of honeycomb on it.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
5	8	54	36	Honeycomb	Place honeycomb as part of base. Alternate it with 54- by 16-inch honeycomb. Place honeycomb as part of base. Alternate it with 54- by 36-inch honeycomb. Place plywood side by side under top layer of base.
	8	54	16	Honeycomb	
	2	27	52	3/4-inch plywood	

Figure 8-6. Stack 5 prepared

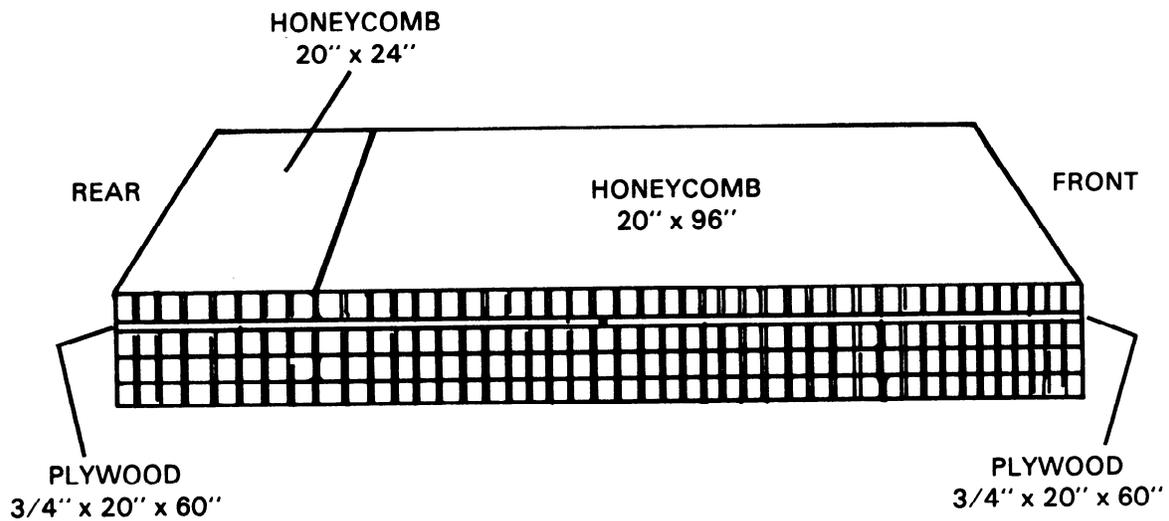
NOTE: This drawing is not drawn to scale.



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
6	9 1	36 36	40 40	Honeycomb 3/4-inch plywood	Form base. Place plywood under top layer of honeycomb.

Figure 8-7. Stack 6 prepared

- NOTES:** 1. This drawing is not drawn to scale.
 2. Each layer of honeycomb has one 20- by 96-inch piece of honeycomb and one 20-by 24-inch piece of honeycomb. Alternate the ends of the stack on which the 20-by 24-inch piece of honeycomb is placed.



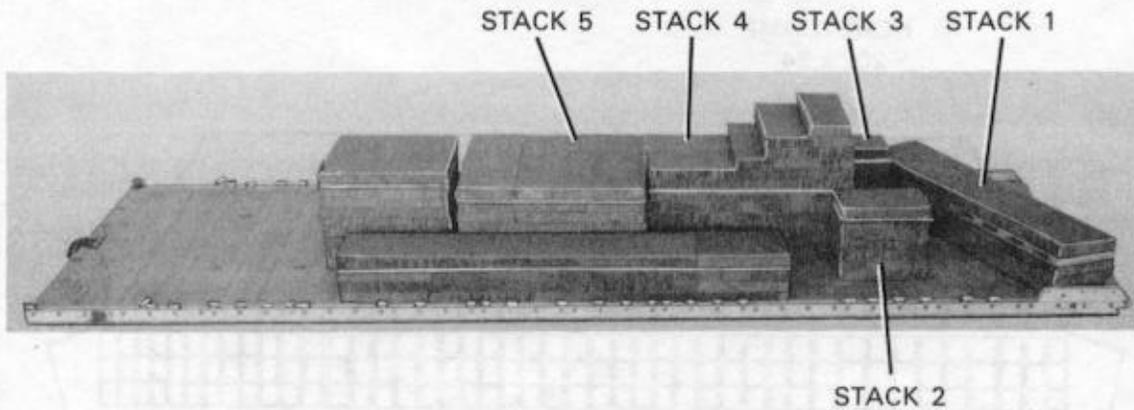
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
7	4	20	96	Honeycomb	Place honeycomb as part of base. Alternate it with 20- by 24-inch honeycomb. Place honeycomb as part of base. Alternate it with 20- by 96-inch honeycomb. Place plywood side by side under top layer of base.
	4	20	24	Honeycomb	
	2	20	60	3/4-inch plywood	
8	4	20	96	Honeycomb	Same as stack 7.
	4	20	24	Honeycomb	
	2	20	60	3/4-inch plywood	

Figure 8-8. Stacks 7 and 8 prepared

c. Position the honeycomb stacks on the platform as shown in Figures 8-9 through 8-13.

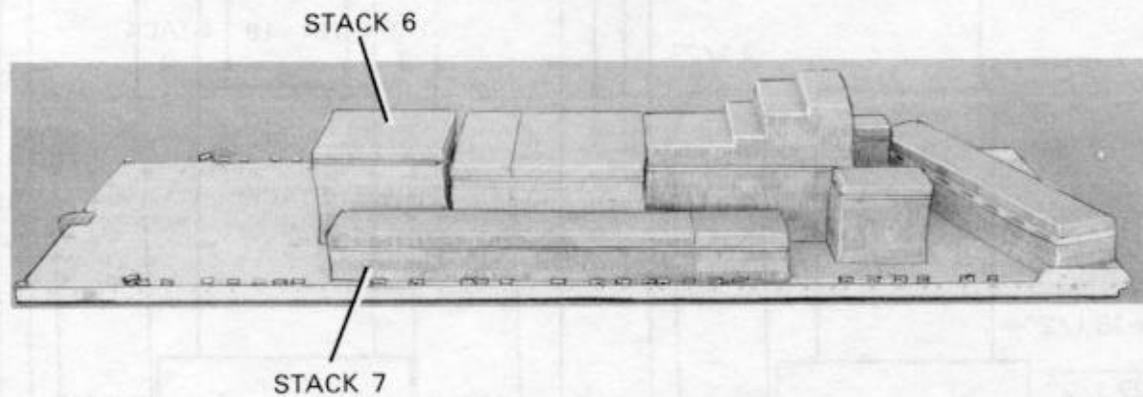
CAUTION

The honeycomb stacks **MUST** be positioned in the following order: stacks 4, 7, 5, 8, and 3. This should be done before the other stacks are positioned.



Stack Number	Position on Platform
1	Angle the stack on the platform with the right front corner of the stack even with the front edge of the platform and the right rear corner against the right side rail. The left front corner is 31 inches from the front of the platform. The left rear edge of the stack is against stack 3.
2	Place the front edge of the stack 46 inches from the front edge of the platform. The left rear side of the stack is against stack 4. The stack extends 18 inches in front of stack 4.
3	Place the stack on the left side of the platform 46 inches from the front edge of the platform, with 6 inches of the right rear edge of the stack against stack 4. The stack extends 18 inches in front of stack 4.
4	Place the stack on the platform with the front edge of the stack 64 inches from the front edge of the platform. The left front side of the stack is 38 inches from the left side rail, and the left rear of the stack is 36 1/2 inches from the left rail.
5	Place the stack on the platform with the front of the stack against stack 4. The left front corner of the stack is 27 1/2 inches from the left rail, and the left rear corner of the stack is 26 inches from the left rail. The right side of the stack is against stack 7.

Figure 8-9. Honeycomb stacks positioned on the platform



Stack Number	Position on Platform
6	Place the stack on the platform with the front edge of the stack 4 inches from stack 5. The left front corner is 35 inches from the left side rail, and the left rear corner of the stack is 34 inches from the left side rail.
7	Place the right front corner of the stack on the platform 85 inches from the front edge of the platform. The right front corner of the stack is 2 1/2 inches from the right rail, and the right rear corner is 4 1/2 inches from the right rail.
8	Place the left front corner of the stack on the platform 85 inches from the front edge of the platform. The left front corner of the stack is 7 1/2 inches from the left rail, and the left rear corner of the stack is 4 1/2 inches from the left rail (not shown).

Figure 8-9. Honeycomb stacks positioned on the platform (continued)

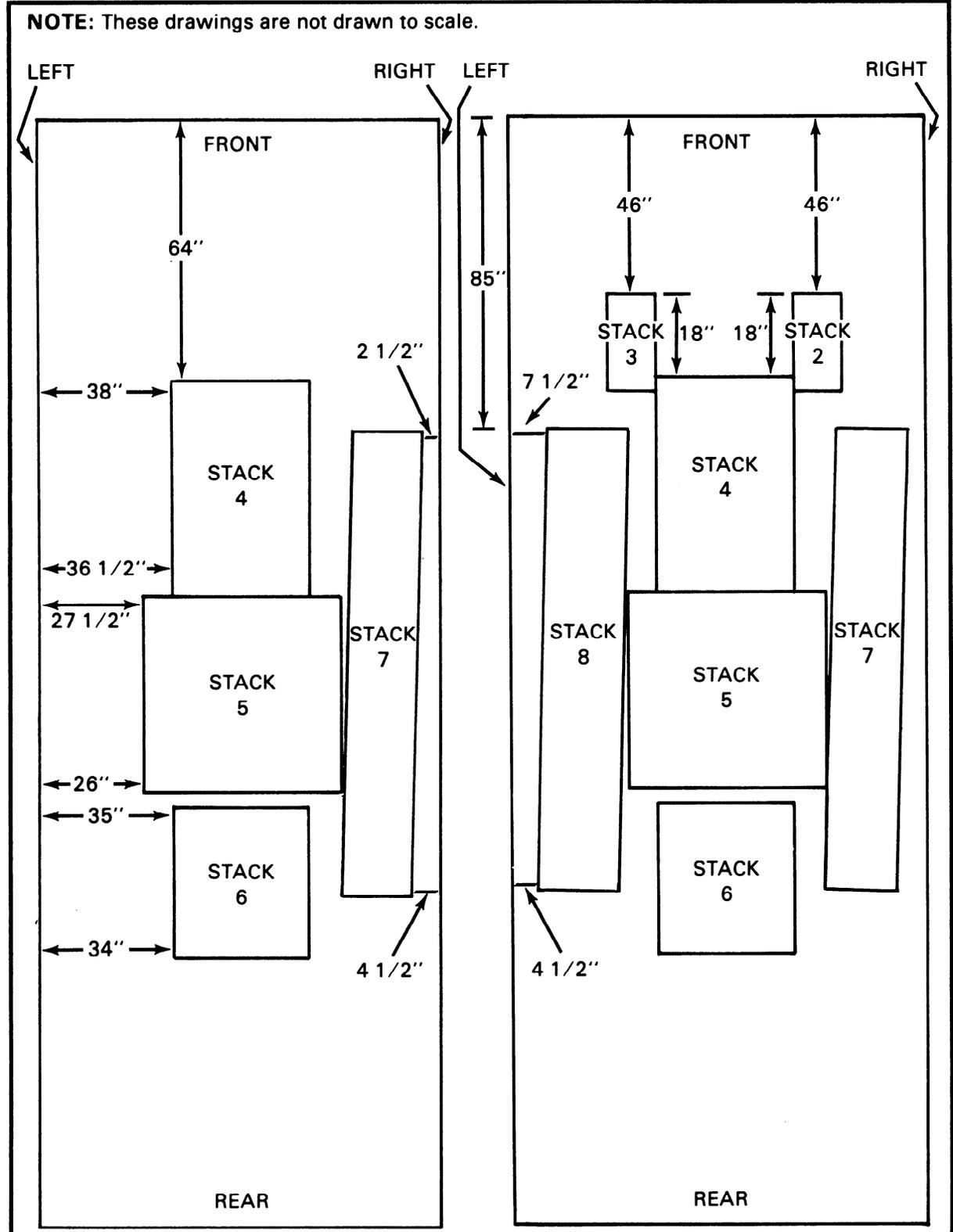


Figure 8-10. Line drawings of honeycomb stacks 2, 3, 4, 5, 6, 7, and 8 positioned on the platform

NOTE: This drawing is not drawn to scale.

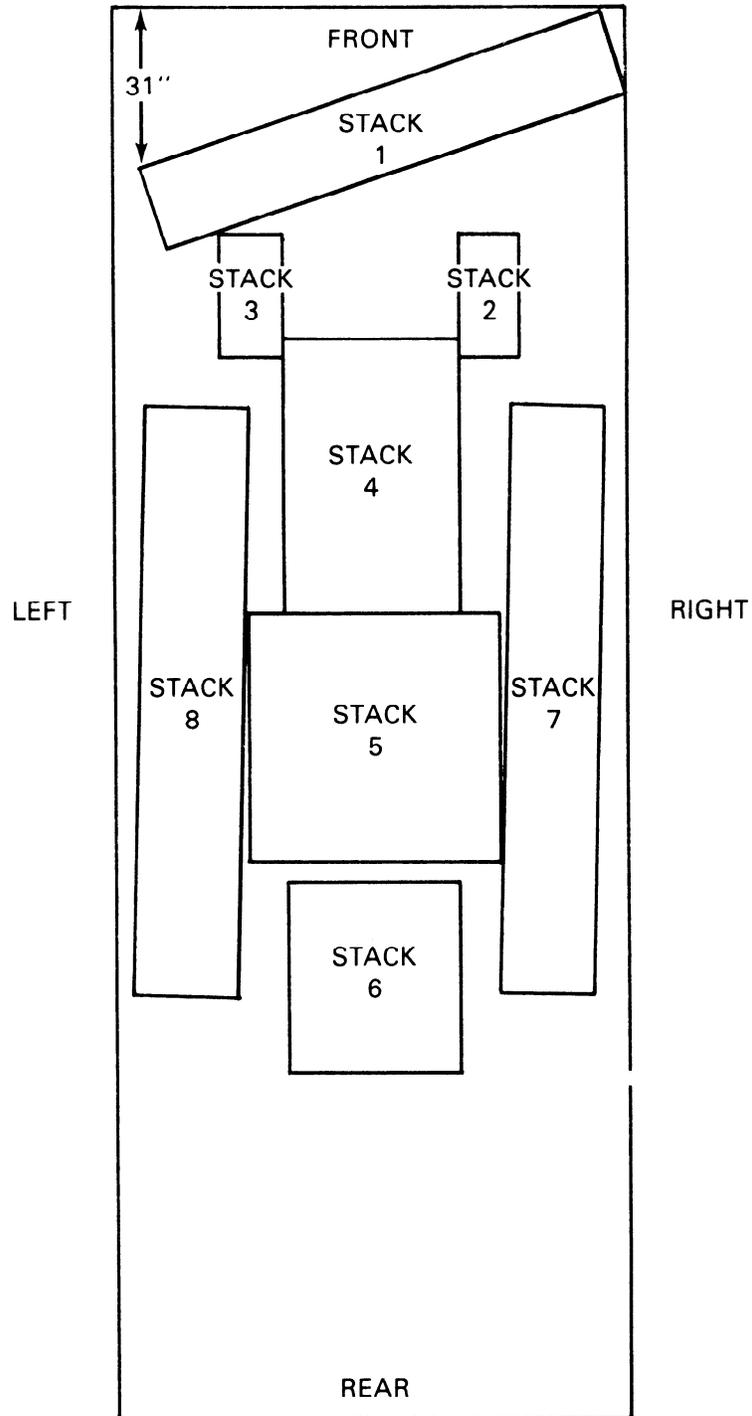


Figure 8-11. Line drawing of honeycomb stacks 1 through 8 positioned on the platform

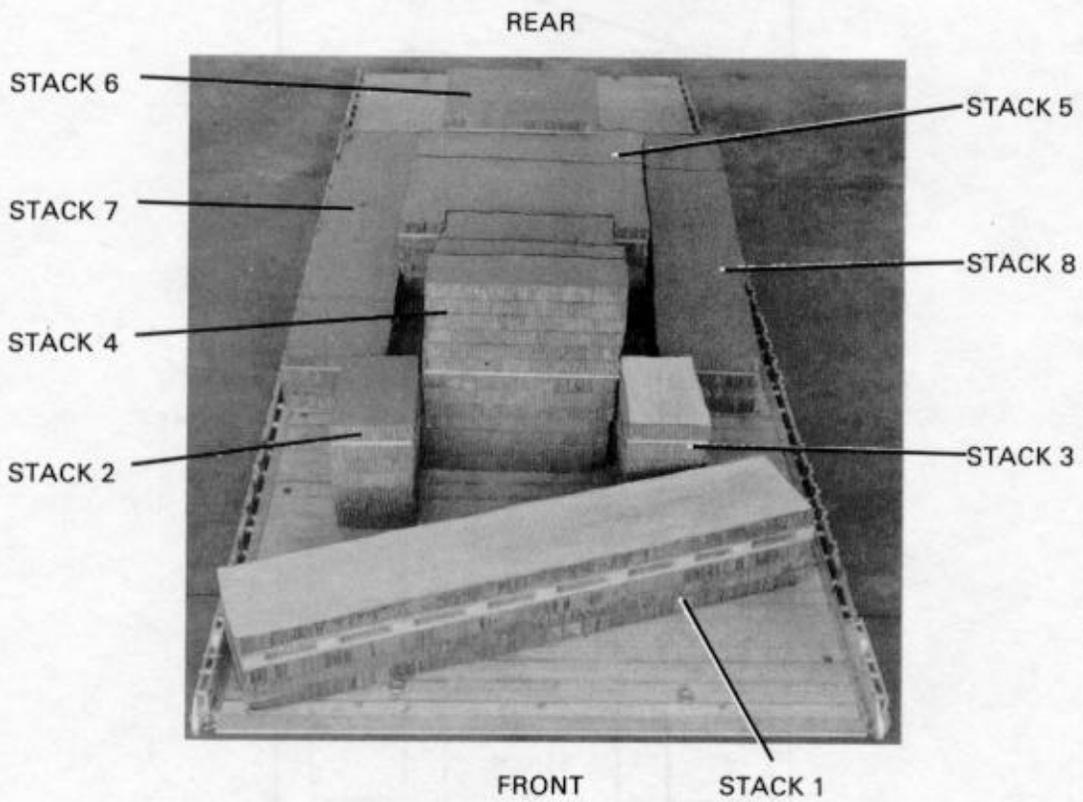


Figure 8-12. Front view of the honeycomb stacks positioned on the platform

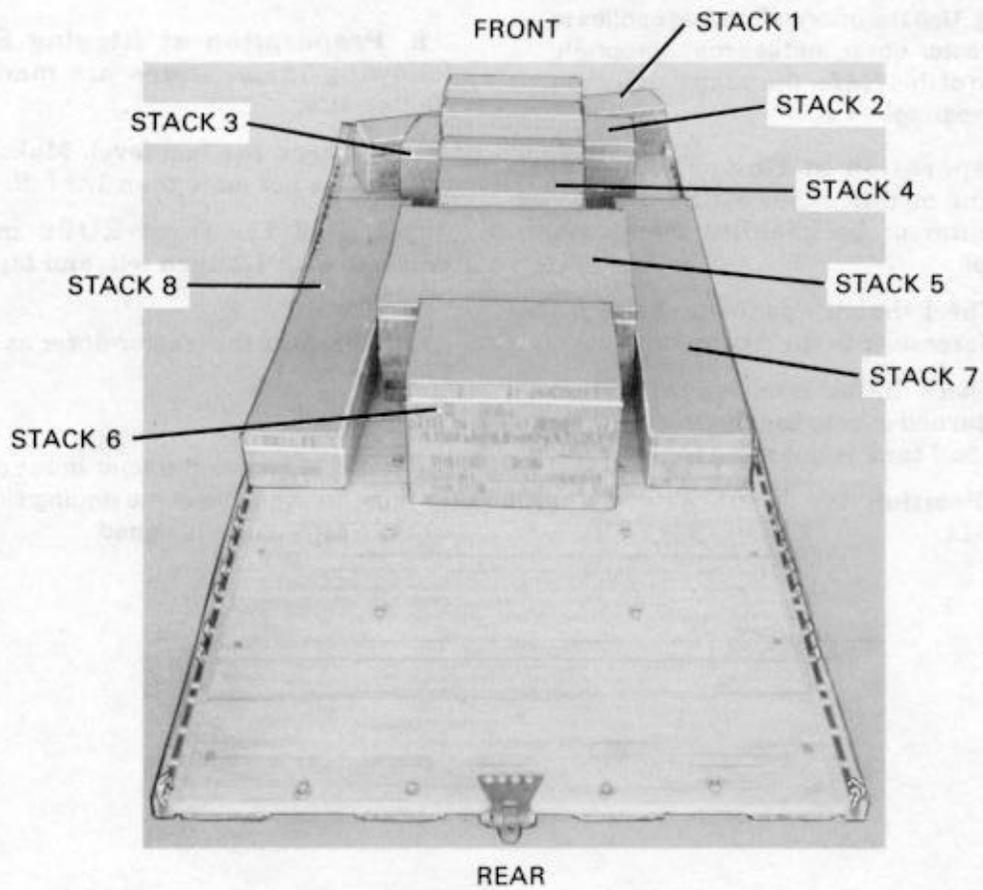


Figure 8-13. Rear view of the honeycomb stacks positioned on the platform

8-4. Preparing Dozer

Personnel of the owning unit and rigging unit personnel will prepare the tractor-dozer as described below.

NOTE: All of the preparations listed below may not apply to the tractor-dozer you are rigging. Use the information that applies to your tractor-dozer, and see the appropriate section of this FM for the tractor-dozer you are preparing.

a. Preparation at Unit. The following checks and modifications **MUST** be done by the operator or by qualified maintenance personnel.

(1) Check the batteries before turning the tractor-dozer over to the rigging unit.

(2) Check the fuel level before the tractor-dozer is turned over to the rigging unit. Make sure the fuel tank is not more than 1/2 full.

(3) Position the blade as shown in Figure 8-14.

(4) Remove the ROPS and the ROPS mounting brackets attached to the tractor-dozer. Remove the nose wheel and bracket and the pivot bracket before the tractor-dozer is delivered to the rigging site.

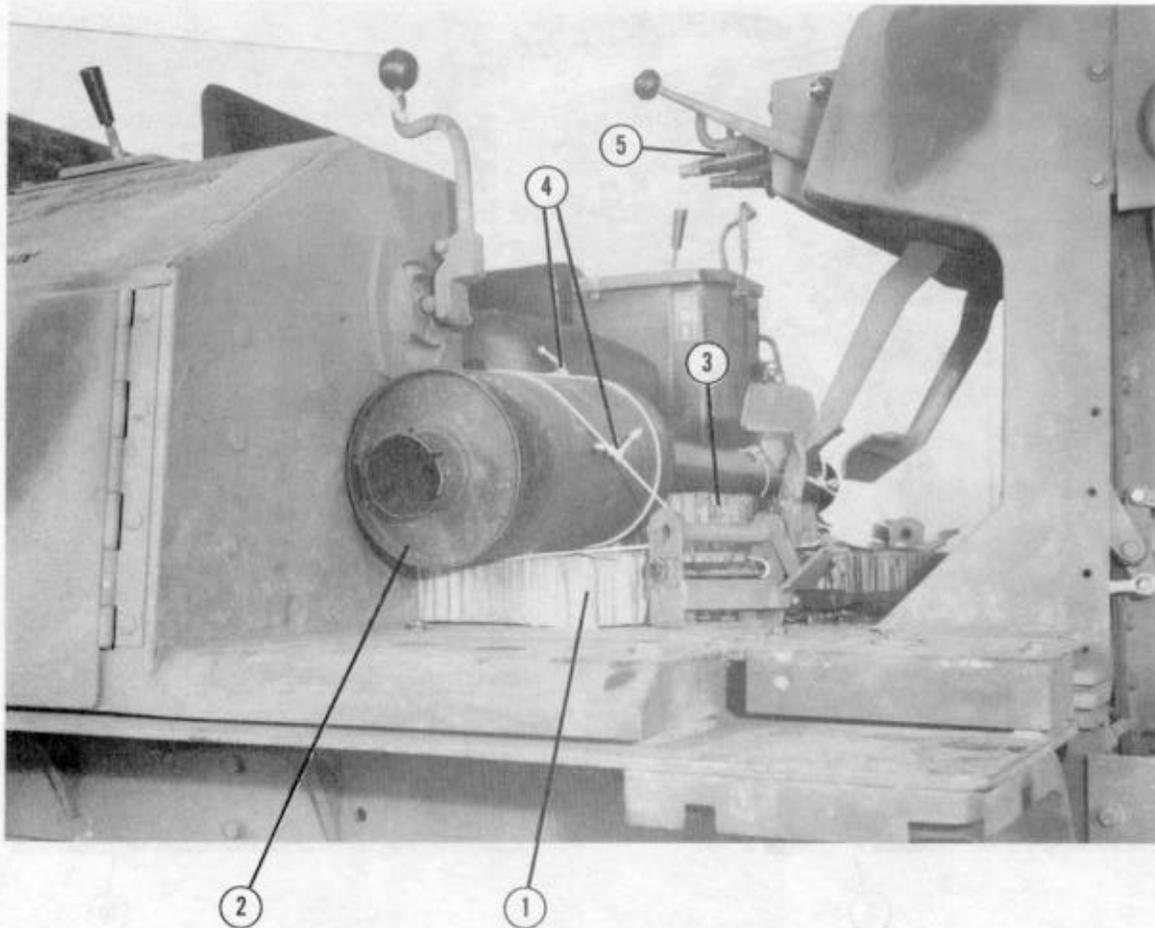
b. Preparation at Rigging Site. The following preparations are made at the rigging site.

(1) Check the fuel level. Make sure the fuel tank is not more than 1/2 full.

(2) Pad the front ROPS mounting brackets with 1/2-inch felt, and tape the felt in place.

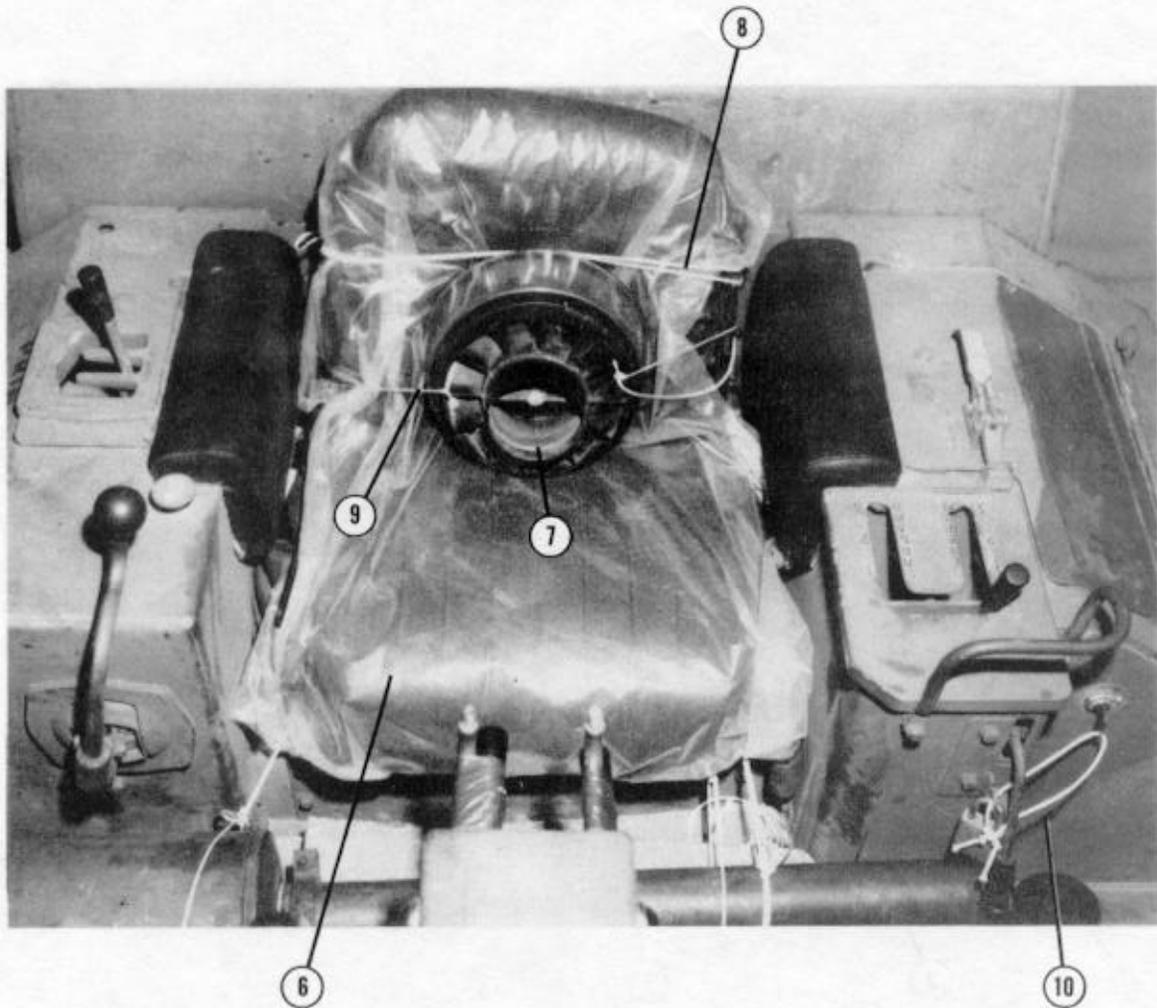
(3) Prepare the tractor-dozer as shown in Figure 8-14.

NOTE: A qualified tractor-dozer operator must be available at the rigging site when the tractor-dozer is rigged.



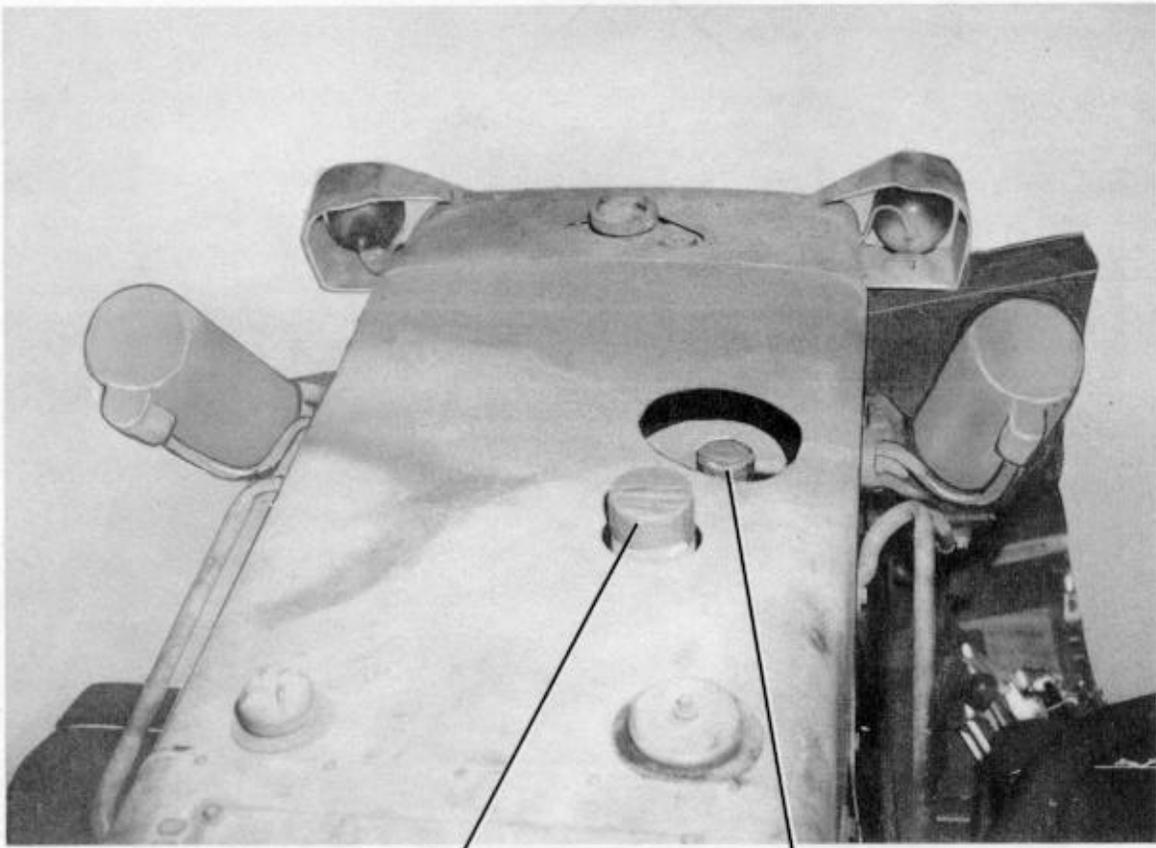
- ① Place a 16- by 36-inch piece of honeycomb on the floor of the operator platform.
- ② Remove the exhaust stack, and place it on top of the 16- by 36-inch piece of honeycomb.
- ③ Place an 8- by 16-inch piece of honeycomb under the exhaust pipe.
- ④ Tie the exhaust stack, exhaust pipe, and honeycomb to the floor of the operator platform with several turns of type III nylon cord.
- ⑤ Remove the control rod handles from the control rods. Tape the control rod handles to the control rods.

Figure 8-14. Tractor-dozer prepared



- ⑥ Cover the operator seat and the back of the seat with plastic.
- ⑦ Remove the air precleaner. Place the air precleaner in the operator seat.
- ⑧ Tie the back of the seat with 1/4-inch cotton webbing.
- ⑨ Tie the air precleaner in place to the back of the seat with type III nylon cord.
- ⑩ Tie the disconnect switch to the transmission control lever safety lock (with the lock in the locked position) using type III nylon cord.

Figure 8-14. Tractor-dozer prepared (continued)

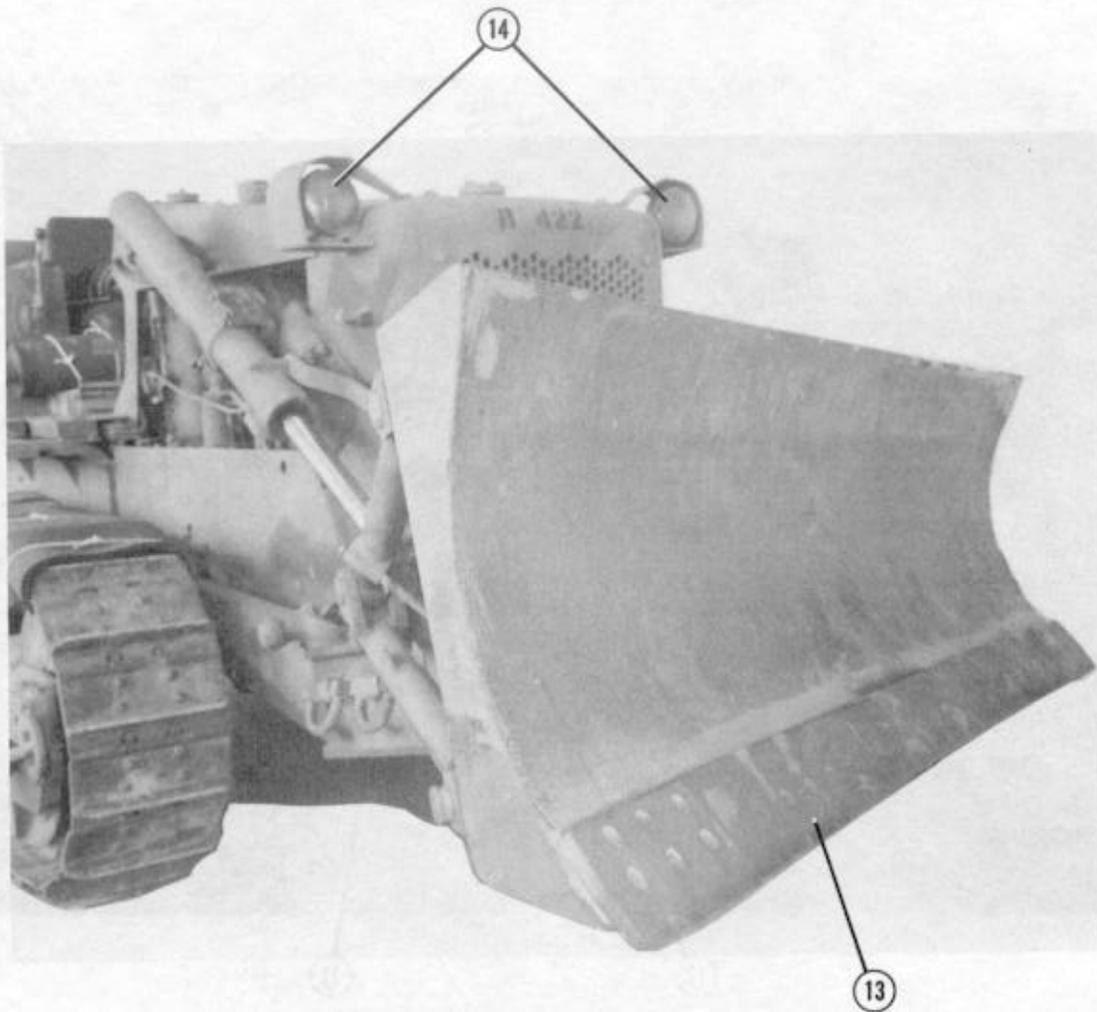


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11

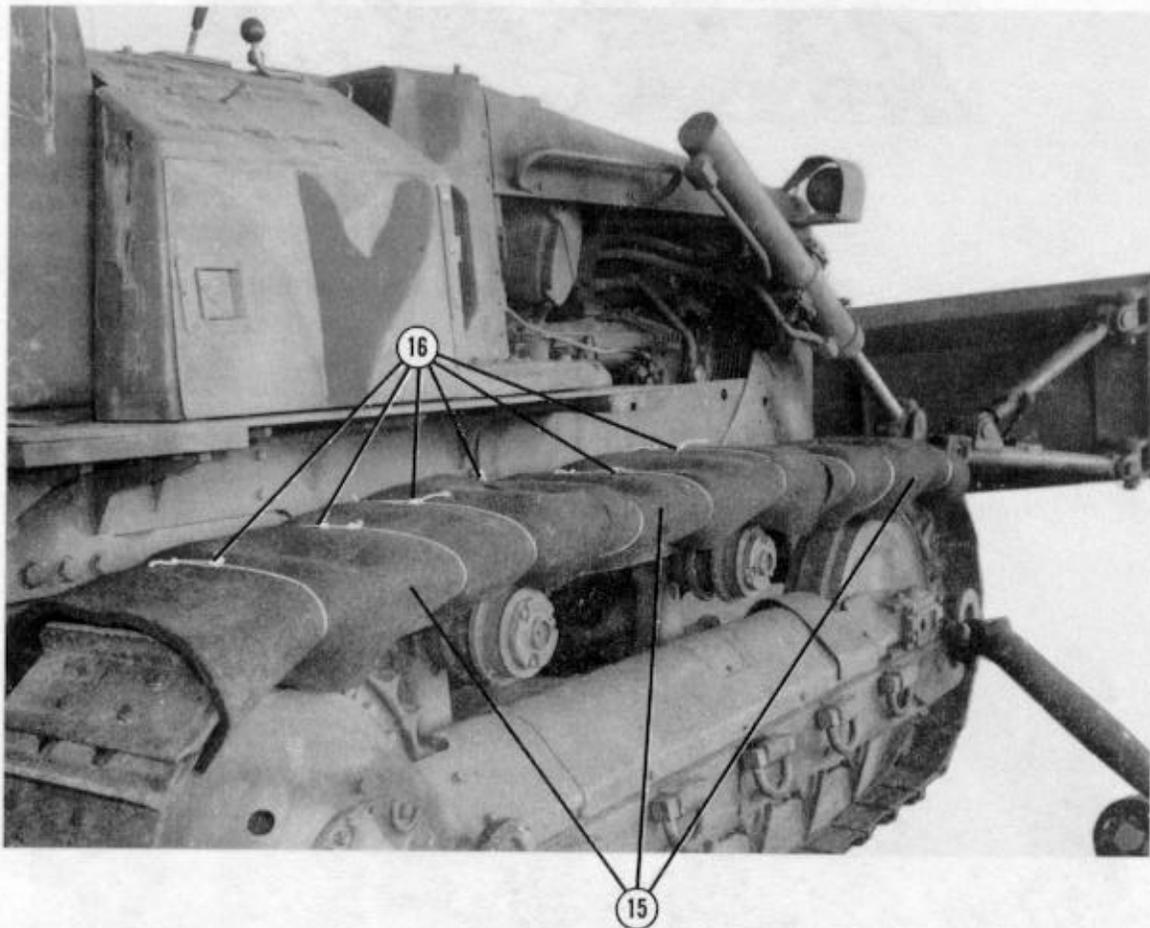
- 11 Cover the exhaust stack opening with tape.
- 12 Cover the air precleaner opening with tape.

Figure 8-14. Tractor-dozer prepared (continued)



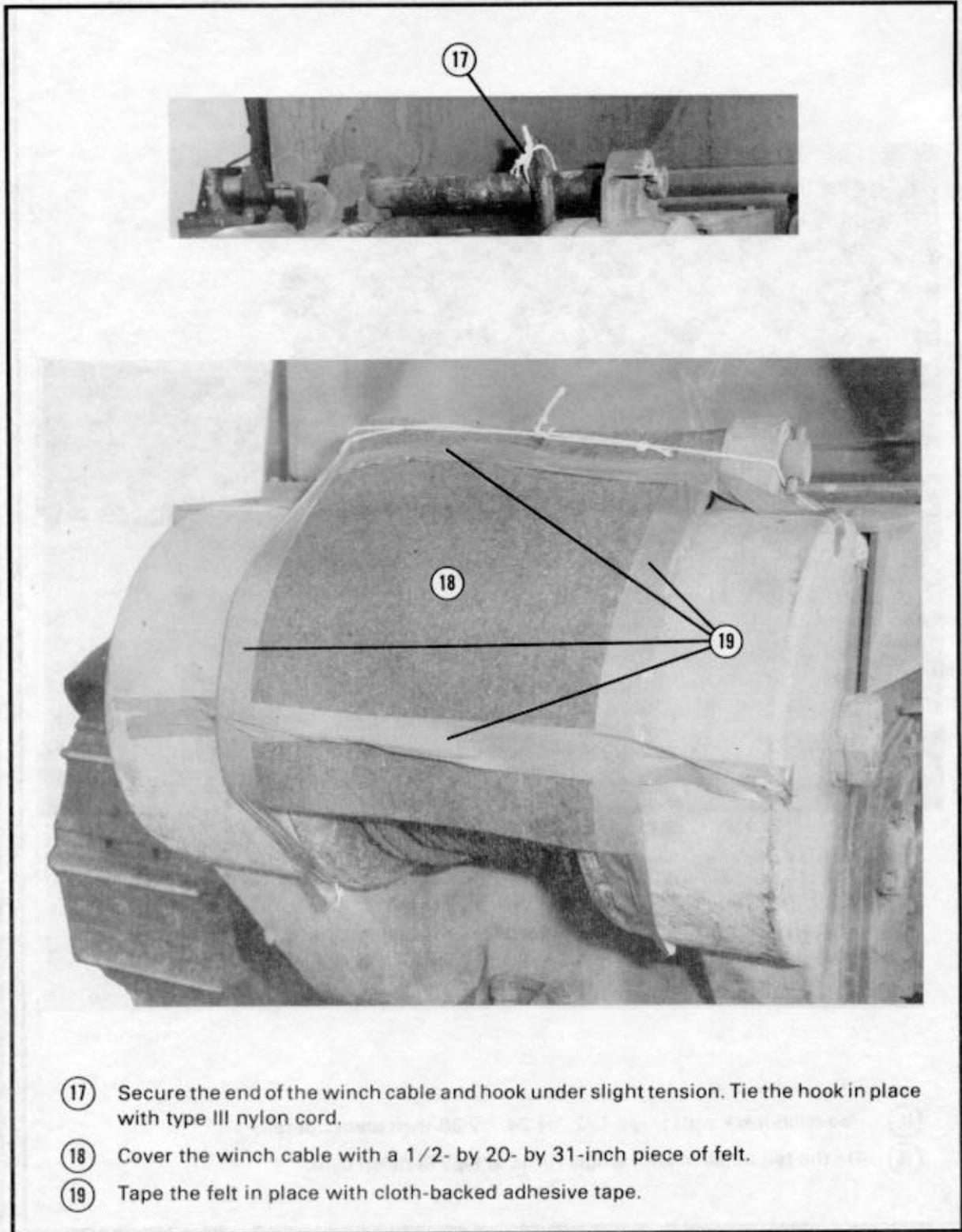
- ⑬ Raise the blade 20 inches from the ground. Angle the blade to the left as far as it will go.
- ⑭ Cover the headlights with tape.

Figure 8-14. Tractor-dozer prepared (continued)



- ⑮ Pad each track with three 1/2- by 24- by 36-inch pieces of felt.
- ⑯ Tie the felt in place with single turns of type III nylon cord.

Figure 8-14. Tractor-dozer prepared (continued)



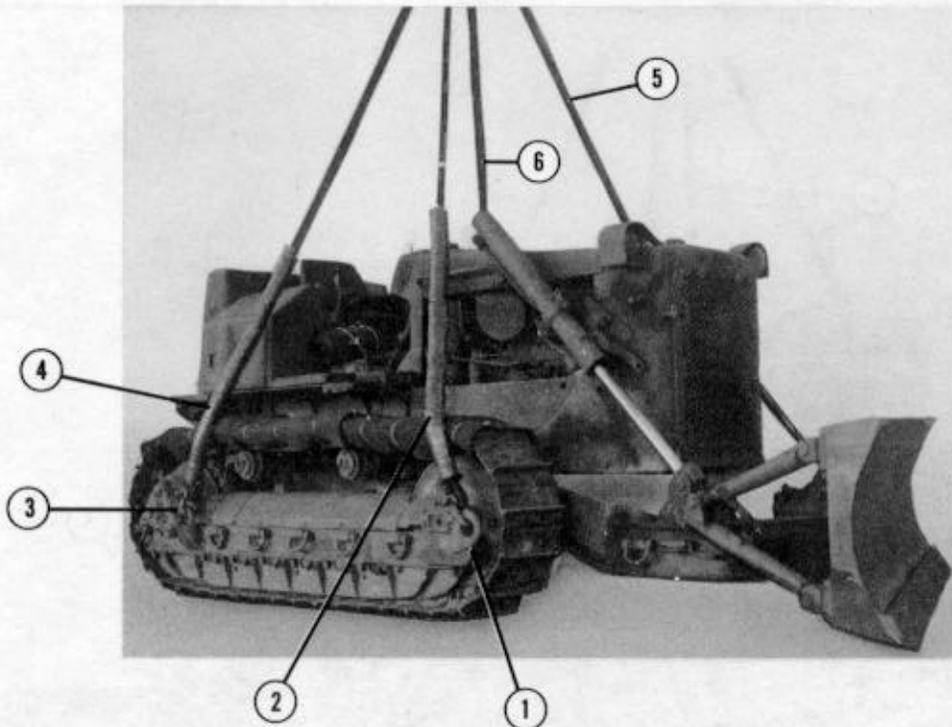
- ①7 Secure the end of the winch cable and hook under slight tension. Tie the hook in place with type III nylon cord.
- ①8 Cover the winch cable with a 1/2- by 20- by 31-inch piece of felt.
- ①9 Tape the felt in place with cloth-backed adhesive tape.

Figure 8-14. Tractor-dozzer prepared (continued)

8-5. Installing Suspension Slings

Install four 12-foot (4-loop), type XXVI nylon webbing slings for suspension slings as outlined in Figure 8-15.

NOTE: Attach a large screw-pin clevis to each lifting point for suspension purposes.



- ① Install a sling on the right front lifting point with a large screw-pin clevis and spacer.
- ② Pad the sling with a 1/2- by 12- by 36-inch piece of felt. Adjust the felt on the sling as necessary to make sure the sling does not touch the track.
- ③ Install a sling on the right rear lifting point with a large screw-pin clevis and spacer.
- ④ Pad the sling with a 1/2- by 12- by 36-inch piece of felt. Adjust the felt on the sling as necessary to make sure the sling does not touch the track.
- ⑤ Install a sling on the left front lifting point adapting the procedures described in 1 and 2 above.
- ⑥ Install a sling on the left rear lifting point adapting the procedures described in 3 and 4 above.

Figure 8-15. Suspension slings installed

8-6. Lifting and Positioning Dozer

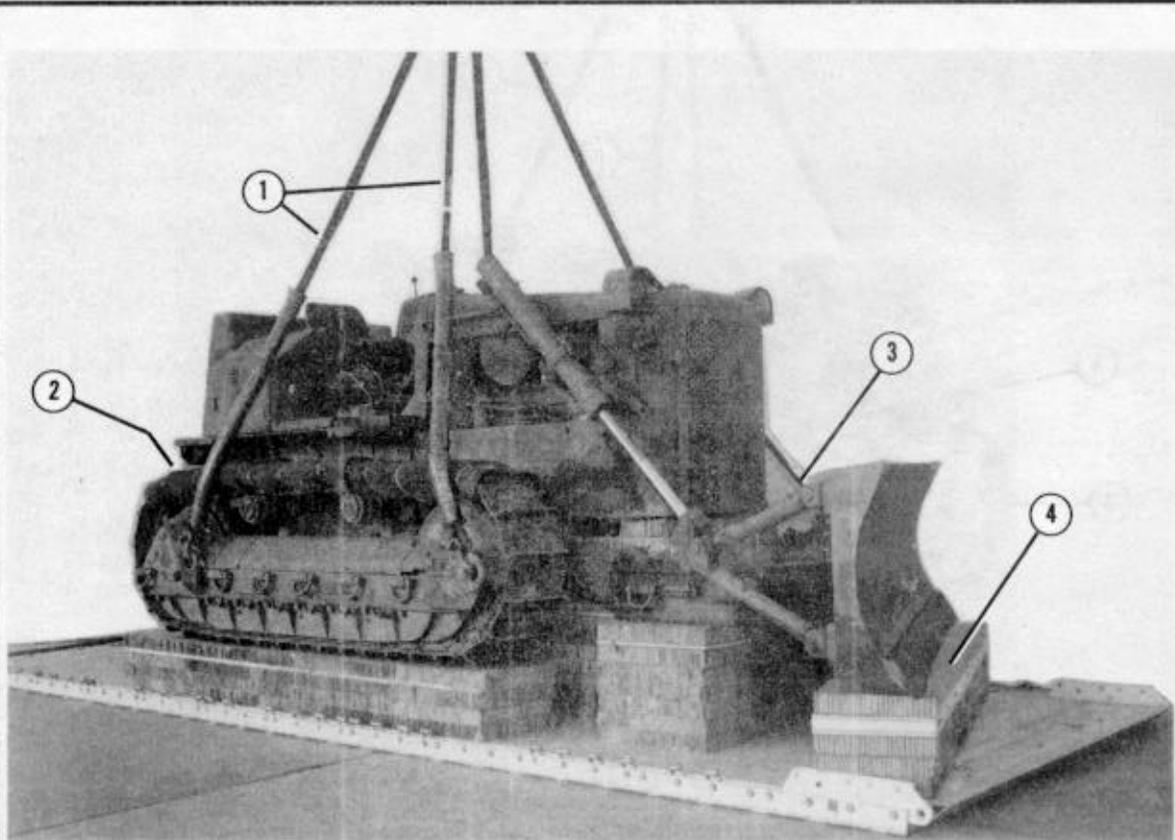
Lift the dozer, and position it on the honeycomb stacks as described below.

a. Use the suspension slings as lifting slings, or attach other slings of equal or greater strength to lift the dozer. If other slings are used, use paragraph 8-5 as a guide to install the lifting slings.

b. Attach the lifting slings to the lifting device.

c. Make sure the lifting slings are padded well enough so that they will not be damaged.

d. Lift the dozer, and position it on the honeycomb stacks as shown in Figure 8-16.



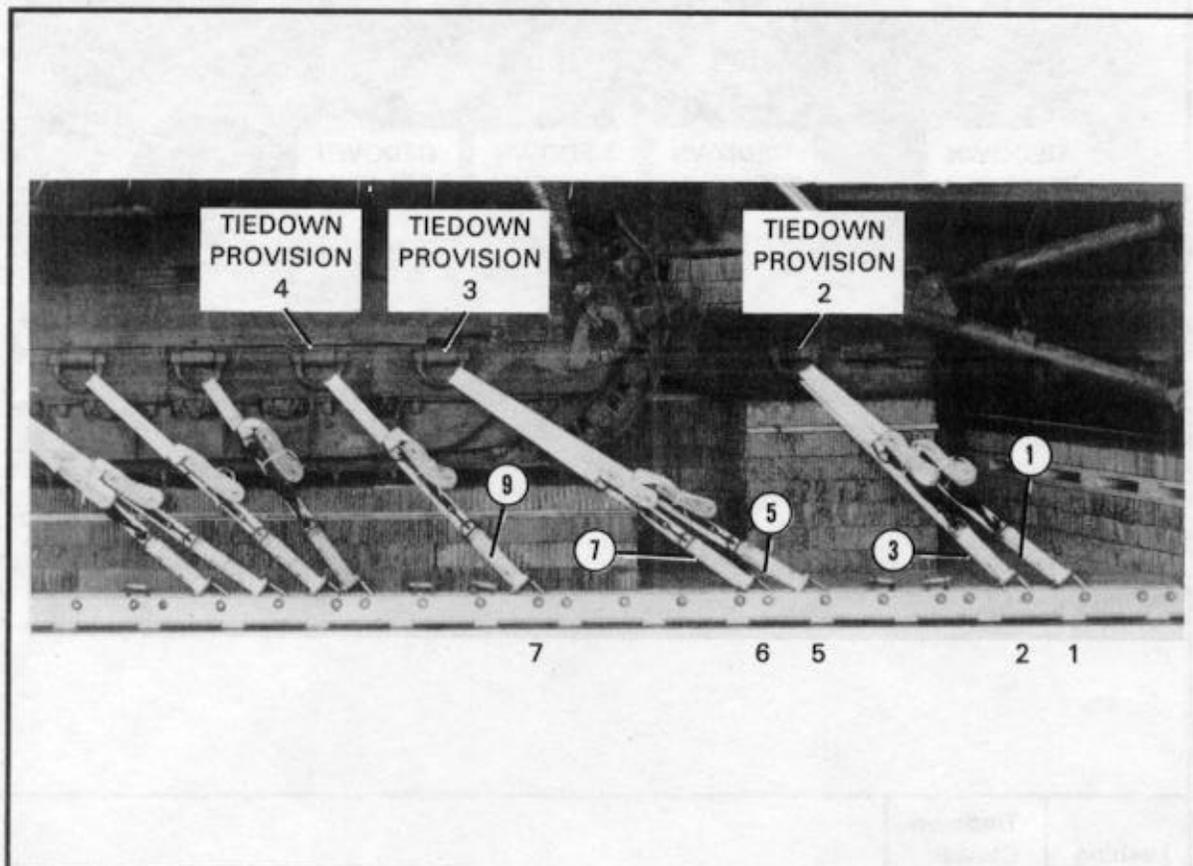
NOTES: 1. If the suspension slings are not used to lift the dozer, remove them.
2. The dozer is set at an angle.

- ① Lift the dozer with the lifting slings.
- ② Center the rear of the dozer down first on stack 6 with the face of the drawbar assembly even with the rear edge of the honeycomb stack.
- ③ Make sure the front pull hook is centered on stack 4.
- ④ Position the blade of the dozer so that it is centered between the rails and about 3 inches from the right front edge of the platform on stack 1.

Figure 8-16. Dozer positioned

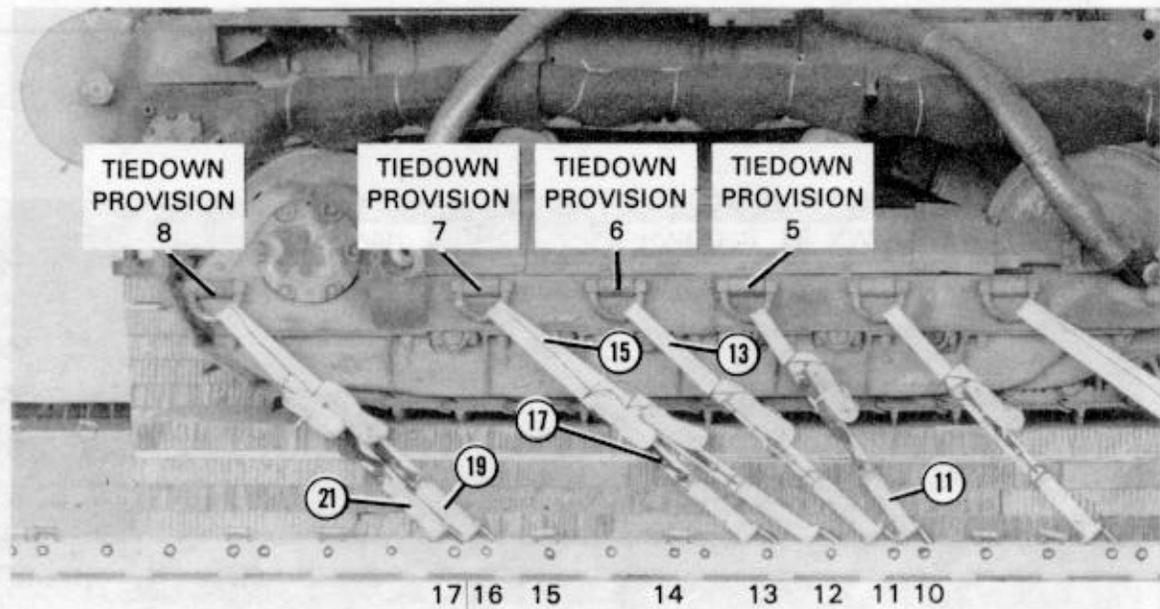
8-7. Lashing Dozer

Lash the dozer to the platform with fifty-two 15-foot tiedown assemblies according to FM 10-500/TO 13C7-1-5 and as shown in Figures 8-17 through 8-21.



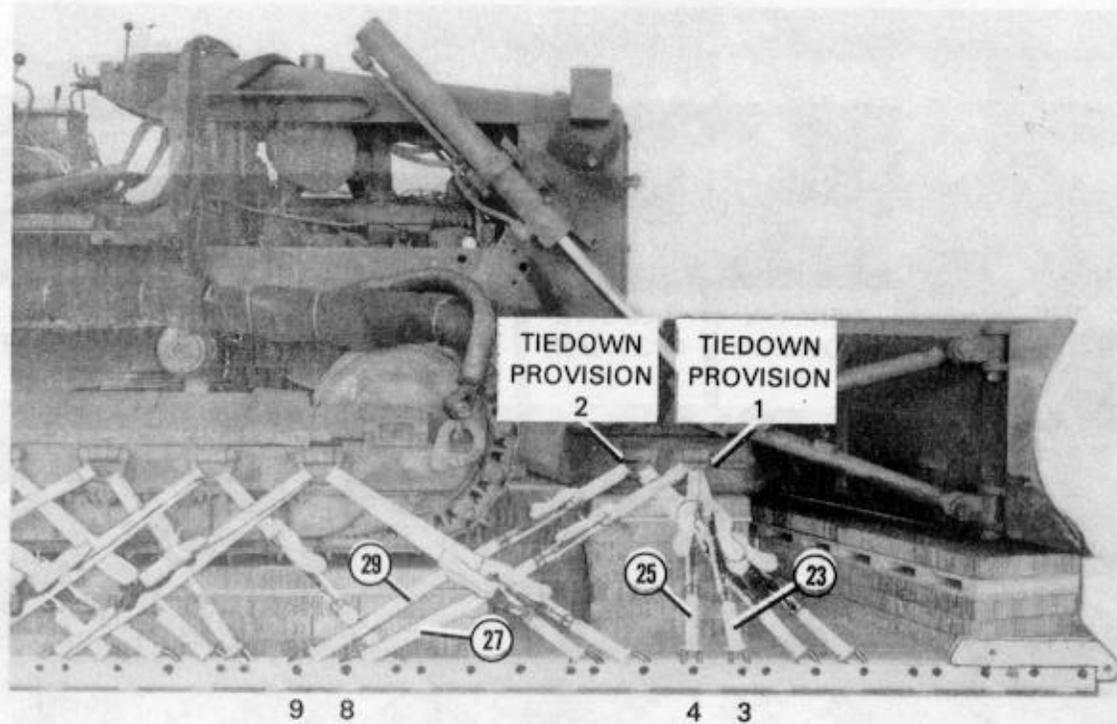
Lashing Number	Tiedown Clevis Number	Instructions
1	1	Pass lashing:
2	1A	Through tiedown provision 2 on blade arm, right side.
3	2	Through tiedown provision 2 on blade arm, left side.
4	2A	Through tiedown provision 2 on blade arm, right side.
5	5	Through tiedown provision 2 on blade arm, left side.
6	5A	Through tiedown provision 3 on track frame, right side.
7	6	Through tiedown provision 3 on track frame, left side.
8	6A	Through tiedown provision 3 on track frame, right side.
9	7	Through tiedown provision 3 on track frame, left side.
10	7A	Through tiedown provision 4 on track frame, right side.
		Through tiedown provision 4 on track frame, left side.

Figure 8-17. Lashings 1 through 10 installed



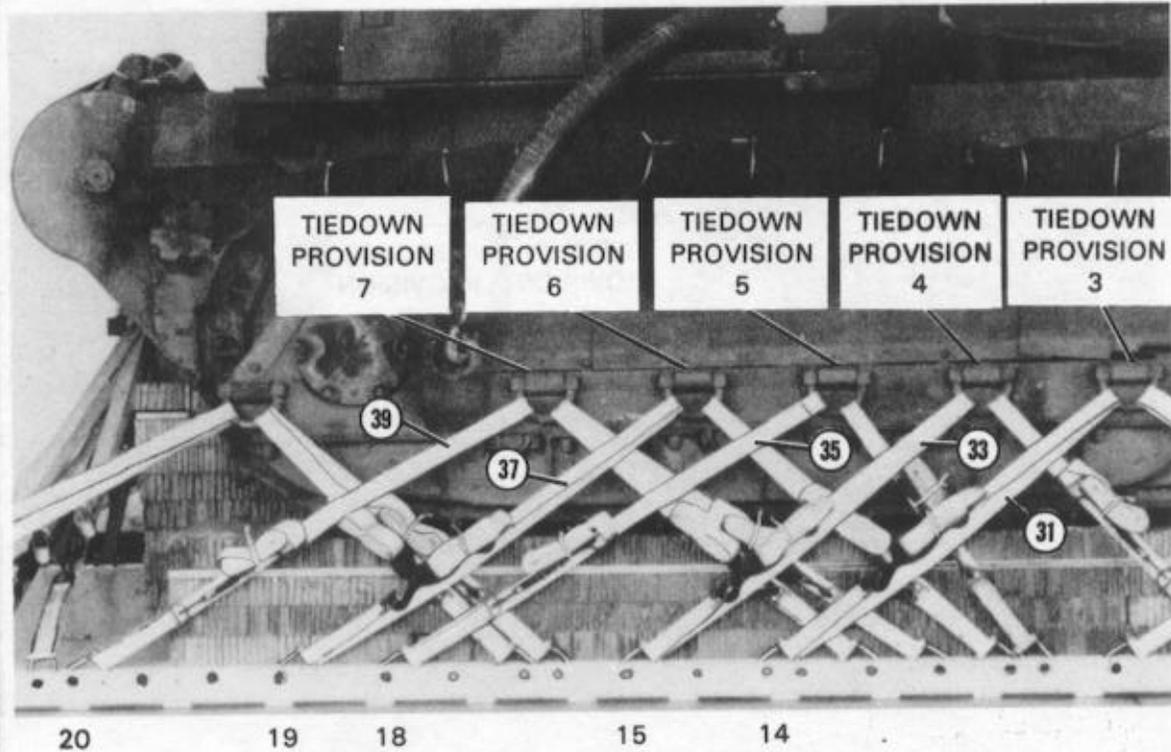
Lashing Number	Tiedown Clevis Number	Instructions
11	10	Pass lashing:
12	10A	Through tiedown provision 5 on track frame, right side.
13	11	Through tiedown provision 5 on track frame, left side.
14	11A	Through tiedown provision 6 on track frame, right side.
15	12	Through tiedown provision 6 on track frame, left side.
16	12A	Through tiedown provision 7 on track frame, right side.
17	13	Through tiedown provision 7 on track frame, left side.
18	13A	Through tiedown provision 7 on track frame, right side.
19	16	Through tiedown provision 7 on track frame, left side.
20	16A	Through tiedown provision 8 on track frame, right side.
21	17	Through tiedown provision 8 on track frame, left side.
22	17A	Through tiedown provision 8 on track frame, right side.

Figure 8-18. Lashings 11 through 22 installed



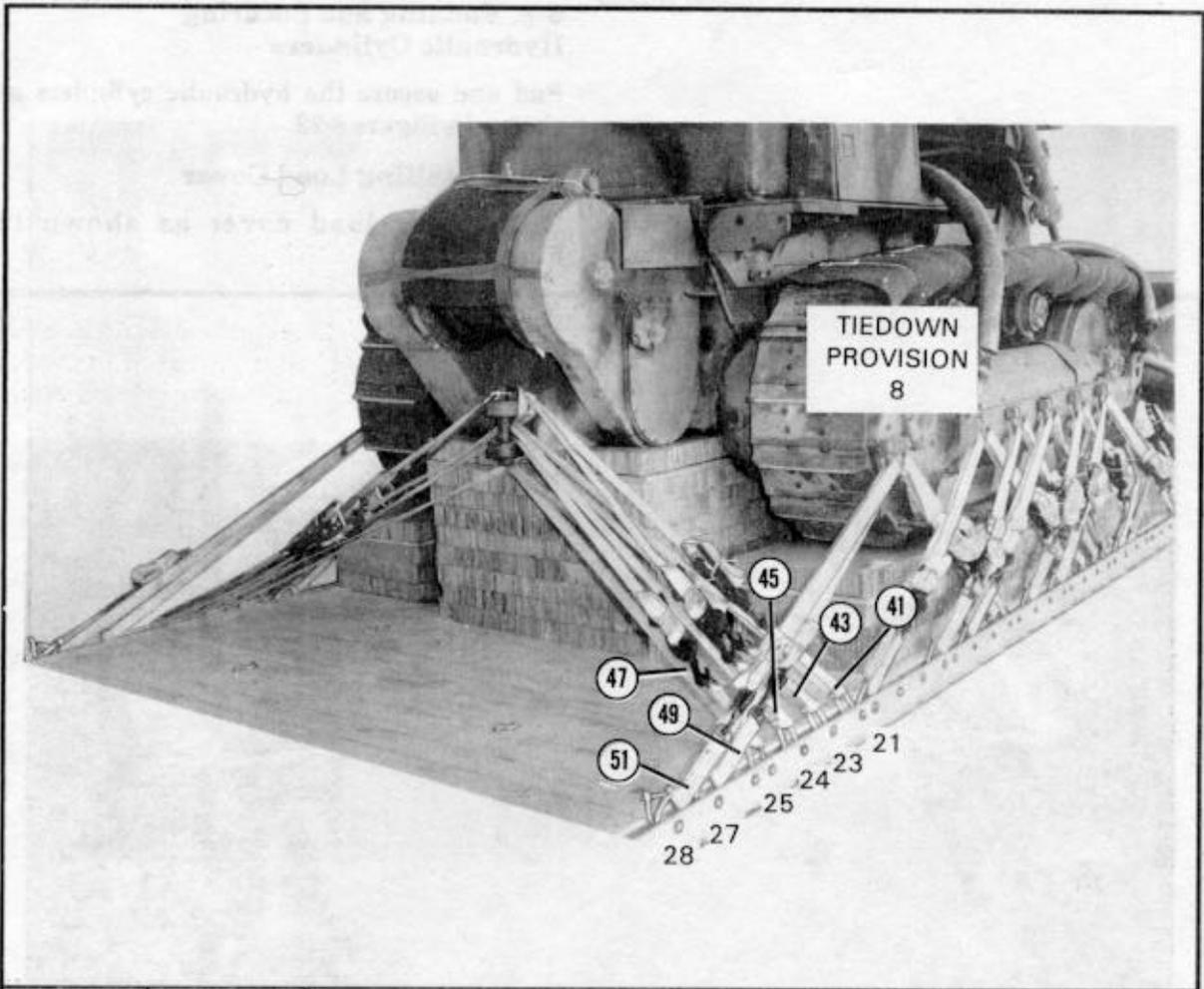
Lashing Number	Tiedown Clevis Number	Instructions
23	3	Pass lashing: Through tiedown provision 1 on blade arm, right side.
24	3A	Through tiedown provision 1 on blade arm, left side.
25	4	Through tiedown provision 1 on blade arm, right side.
26	4A	Through tiedown provision 1 on blade arm, left side.
27	8	Through tiedown provision 1 on blade arm, right side.
28	8A	Through tiedown provision 1 on blade arm, left side.
29	9	Through tiedown provision 2 on blade arm, right side.
30	9A	Through tiedown provision 2 on blade arm, left side.

Figure 8-19. Lashings 23 through 30 installed



Lashing Number	Tiedown Clevis Number	Instructions
31	14	Pass lashing:
32	14A	Through tiedown provision 3 on track frame, right side.
33	15	Through tiedown provision 3 on track frame, left side.
34	15A	Through tiedown provision 4 on track frame, right side.
35	18	Through tiedown provision 4 on track frame, left side.
36	18A	Through tiedown provision 5 on track frame, right side.
37	19	Through tiedown provision 5 on track frame, left side.
38	19A	Through tiedown provision 6 on track frame, right side.
39	20	Through tiedown provision 6 on track frame, left side.
40	20A	Through tiedown provision 7 on track frame, right side.
		Through tiedown provision 7 on track frame, left side.

Figure 8-20. Lashings 31 through 40 installed



Lashing Number	Tiedown Clevis Number	Instructions
41	21	Pass lashing:
42	21A	Around top lug of drawbar bracket.
43	23	Around top lug of drawbar bracket.
44	23A	Around bottom lug of drawbar bracket.
45	24	Around bottom lug of drawbar bracket.
46	24A	Around top lug of drawbar bracket.
47	25	Around top lug of drawbar bracket.
48	25A	Around bottom lug of drawbar bracket.
49	27	Through tiedown provision 8 on track frame, right side.
50	27A	Through tiedown provision 8 on track frame, left side.
51	28	Through tiedown provision 8 on track frame, right side.
52	28A	Through tiedown provision 8 on track frame, left side.

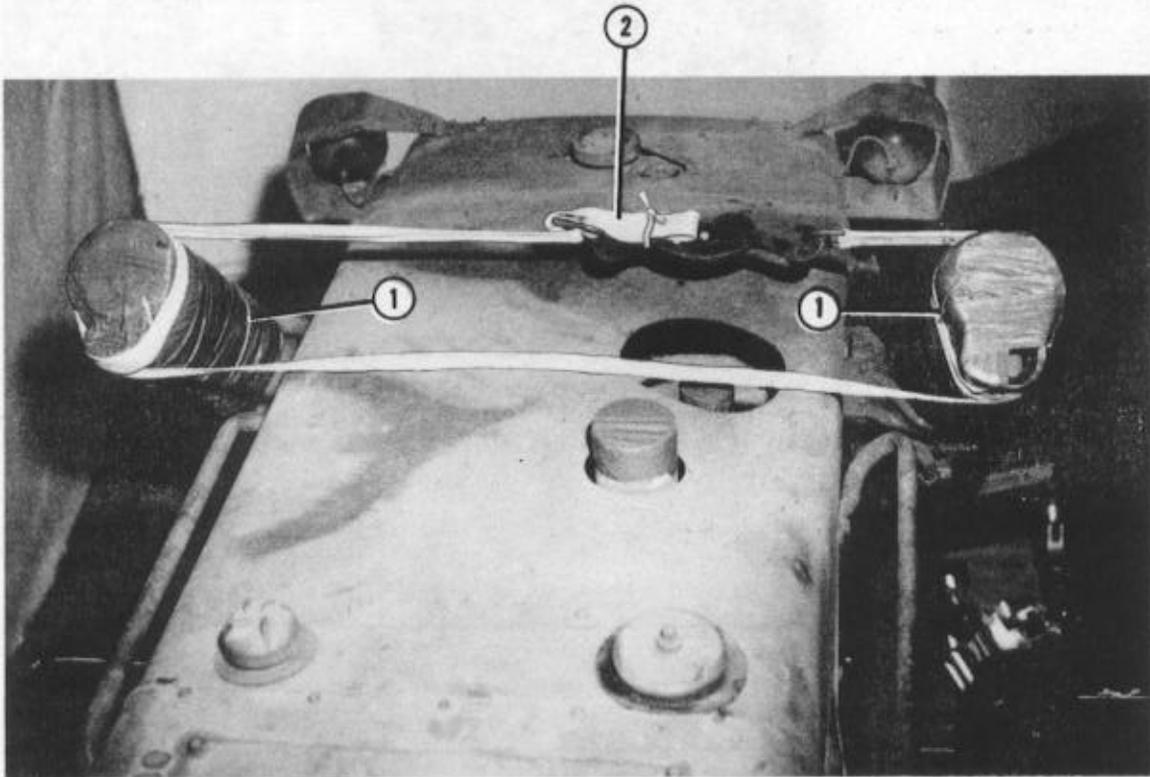
Figure 8-21. Lashings 41 through 52 installed

8-8. Padding and Securing Hydraulic Cylinders

Pad and secure the hydraulic cylinders as shown in Figure 8-22.

8-9. Installing Load Cover

Install the load cover as shown in Figure 8-23.



- ① Pad the top part of each hydraulic cylinder with a 1/2- by 18- by 24-inch piece of felt, and tape the felt in place. Tie the taped felt to each hydraulic cylinder with type III nylon cord.
- ② Pass one end of a 15-foot tiedown strap around one hydraulic cylinder and then around the other cylinder. Secure the ends of the strap together according to FM 10-500/TO 13C7-1-5.

Figure 8-22. Hydraulic cylinders padded and secured

8-10. Installing Deadman's Tie

NOTICE OF EXCEPTION: The procedures in this paragraph are different from those in FM 10-500/TO 13C7-1-5. The deadman's tie is installed even with the top of the load. An exception to FM 10-500/TO 13C7-1-5 is granted.

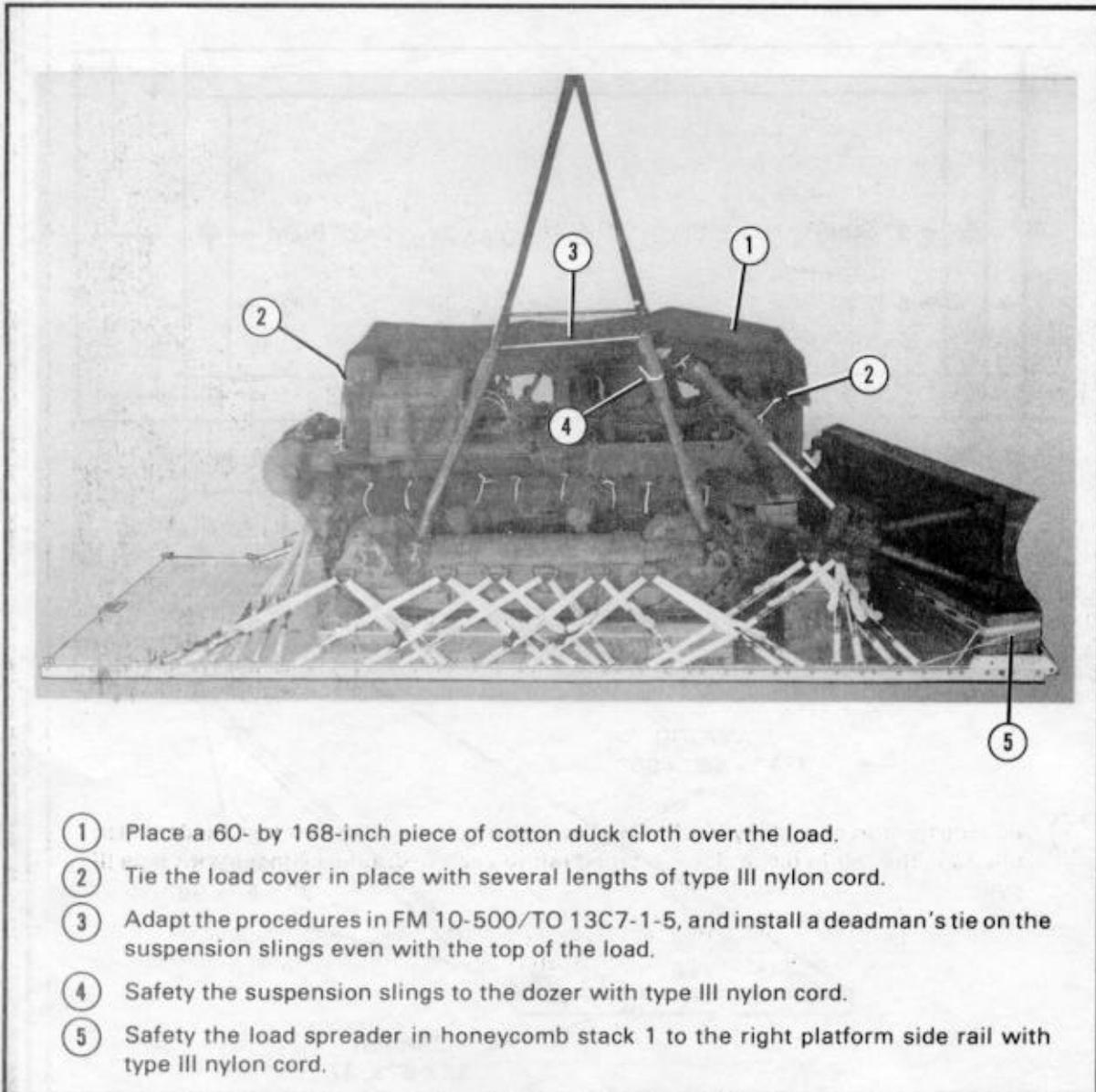
Install the deadman's tie as shown in Figure 8-23.

8-11. Safetying Suspension Slings

Install a safety tie on the suspension slings as shown in Figure 8-23.

8-12. Safetying Load Spreader

Install a safety tie on the load spreader in honeycomb stack 1 as shown in Figure 8-23.



- ① Place a 60- by 168-inch piece of cotton duck cloth over the load.
- ② Tie the load cover in place with several lengths of type III nylon cord.
- ③ Adapt the procedures in FM 10-500/TO 13C7-1-5, and install a deadman's tie on the suspension slings even with the top of the load.
- ④ Safety the suspension slings to the dozer with type III nylon cord.
- ⑤ Safety the load spreader in honeycomb stack 1 to the right platform side rail with type III nylon cord.

Figure 8-23. Load cover, deadman's tie, and safety ties installed

8-13. Stowing Cargo Parachutes

Build a parachute stowage platform, and stow the cargo parachutes as described below.

a. Building Stowage Platform. Build the stowage platform using the dimensions in Figure 8-24.

- NOTES:**
1. These drawings are not drawn to scale.
 2. Platform constructed using one piece of 3/4- by 48- by 96-inch plywood, two pieces of 2- by 6- by 37-inch lumber, and two pieces of 2- by 6- by 96-inch lumber.
 3. Use eightpenny nails to nail the plywood to the lumber.

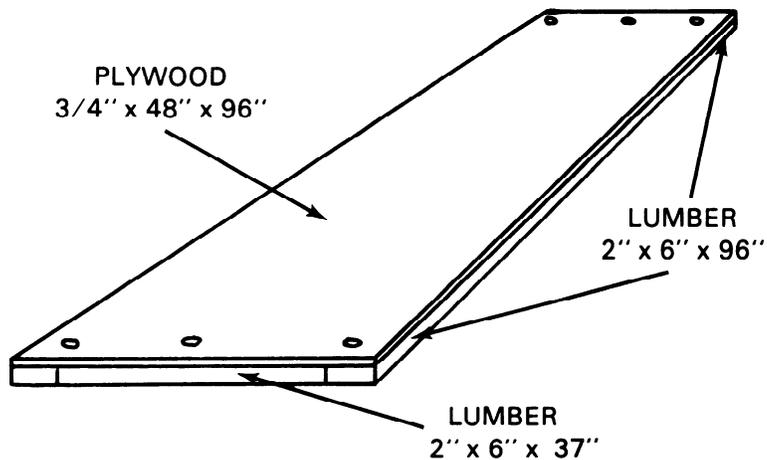
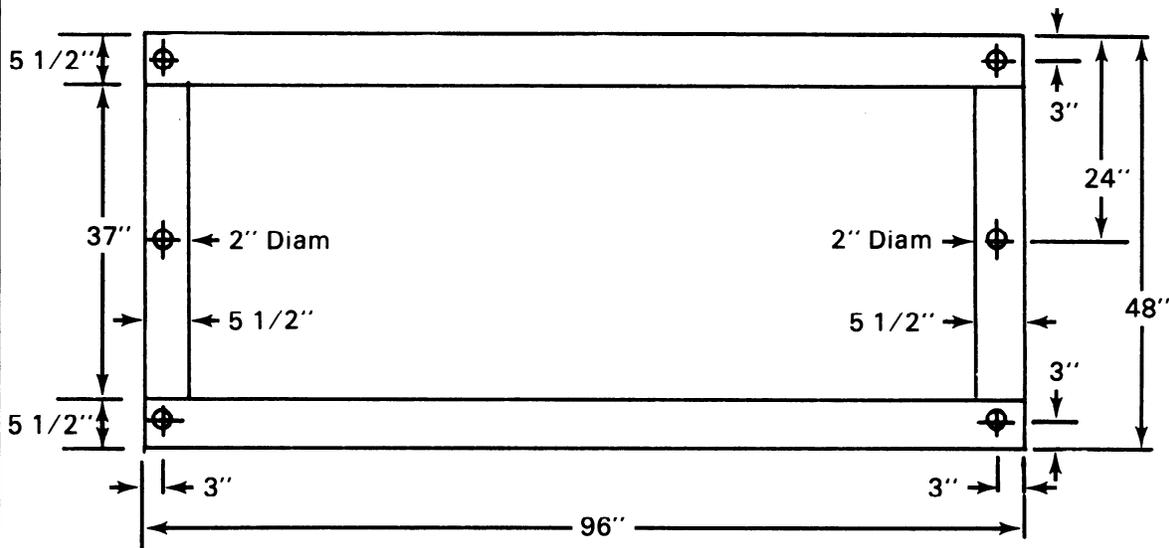
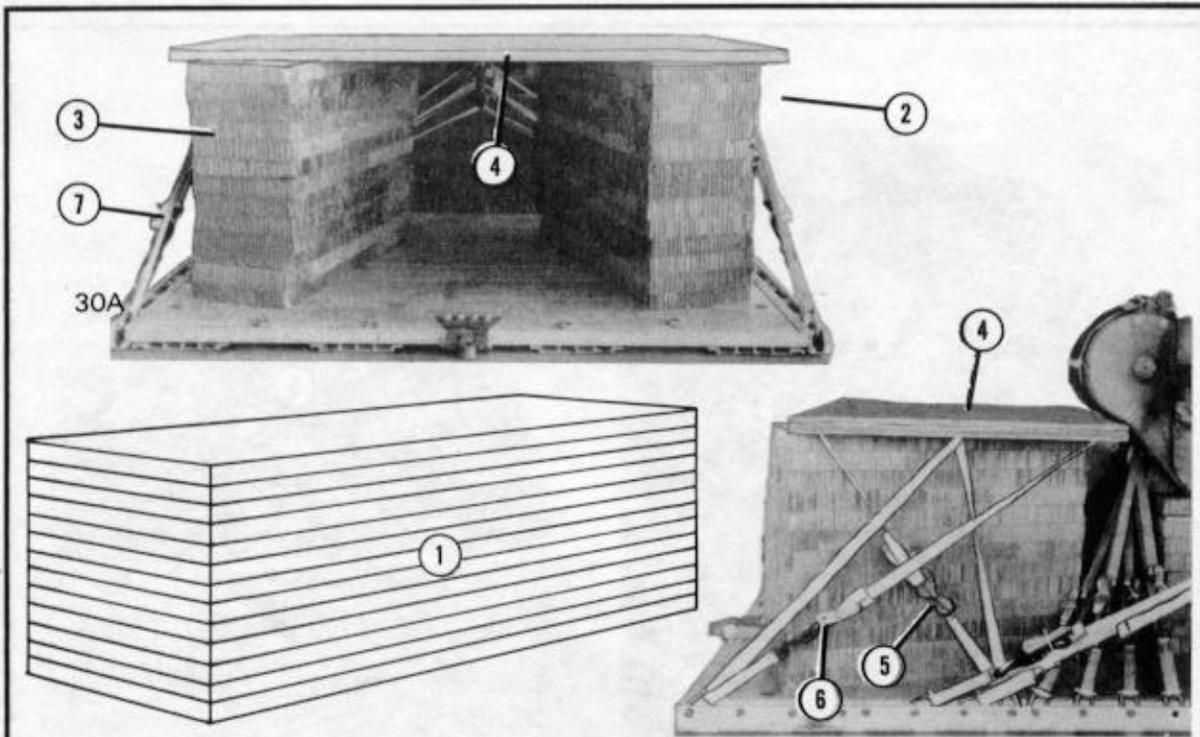


Figure 8-24. Construction details for parachute stowage platform

b. Securing Stowage Platform. Position and secure the stowage platform as shown in Figure 8-25.



- ① Build two honeycomb stacks with thirteen 18- by 48-inch pieces in each stack.
- ② Place one stack on the right side of the platform with the right rear corner of the stack 8 inches from the right rail and the right front corner 22 inches from the right rail. The left rear corner is 8 inches from the rear of the platform.
- ③ Place one stack on the left side of the platform with the left rear corner of the stack 8 inches from the left rail and the left front corner 22 inches from the left rail. The right rear corner is 8 inches from the rear of the platform.
- ④ Center the stowage platform on the honeycomb stacks.
- ⑤ Run a 15-foot tiedown strap through clevis 26, up through the center hole in the right side of the stowage platform, and down through the rear hole. Hook the ends of the strap together with a D-ring and a load binder.
- ⑥ Run a 15-foot tiedown strap through clevis 30, up through the center hole in the right side of the stowage platform, and down through the front hole. Hook the ends of the strap together with a D-ring and a load binder.
- ⑦ Lash the other side of the stowage platform in the same way using clevises 26A and 30A.

Figure 8-25. Parachute stowage platform positioned and secured

c. Stowing Parachutes. Stow the parachutes as shown in Figure 8-26.

8-14. Installing the Release System

Prepare the M-2 cargo parachute release assembly according to FM 10-500/TO 13C7-1-5. Install the release assembly as shown in Figure 8-27.

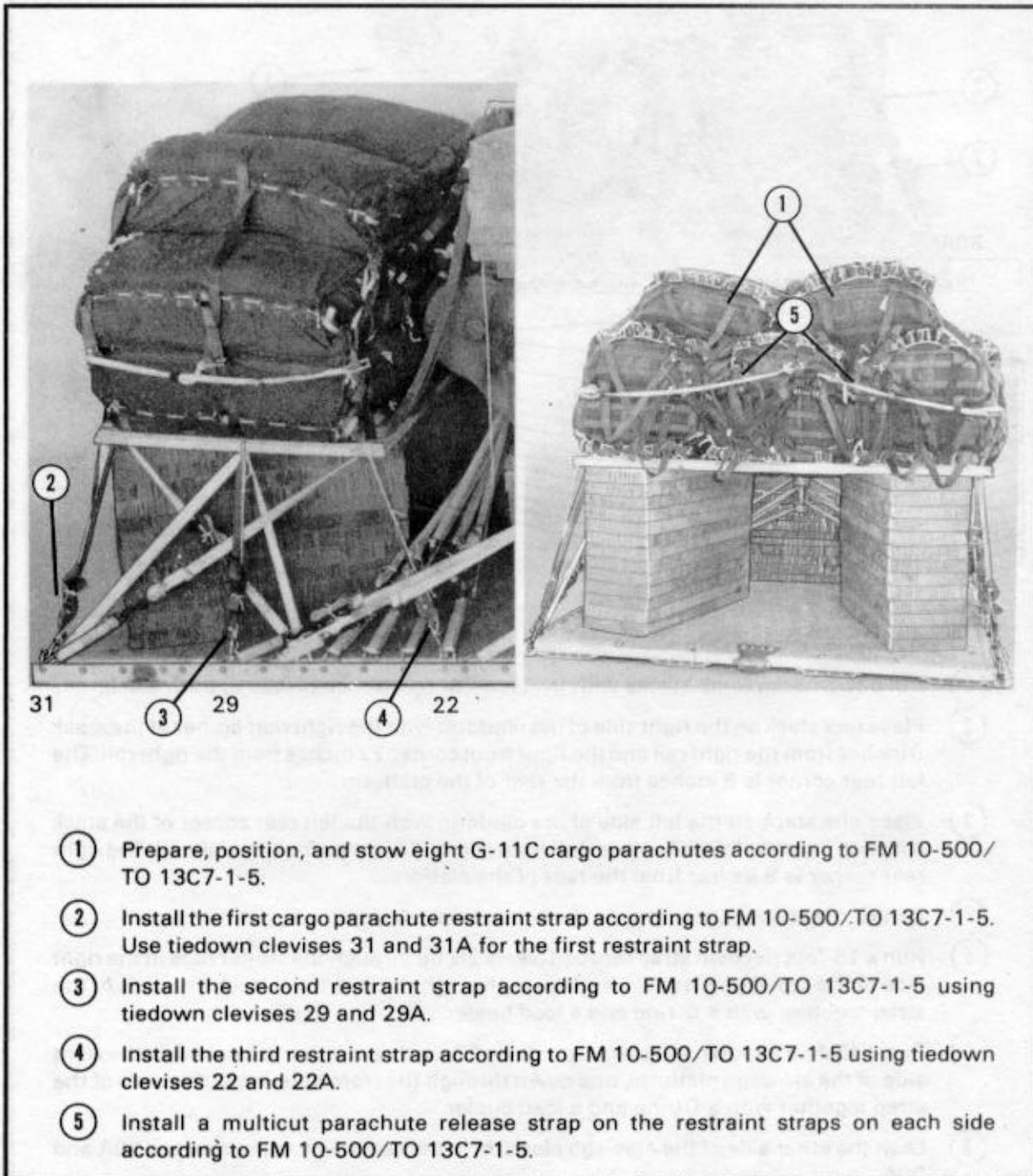
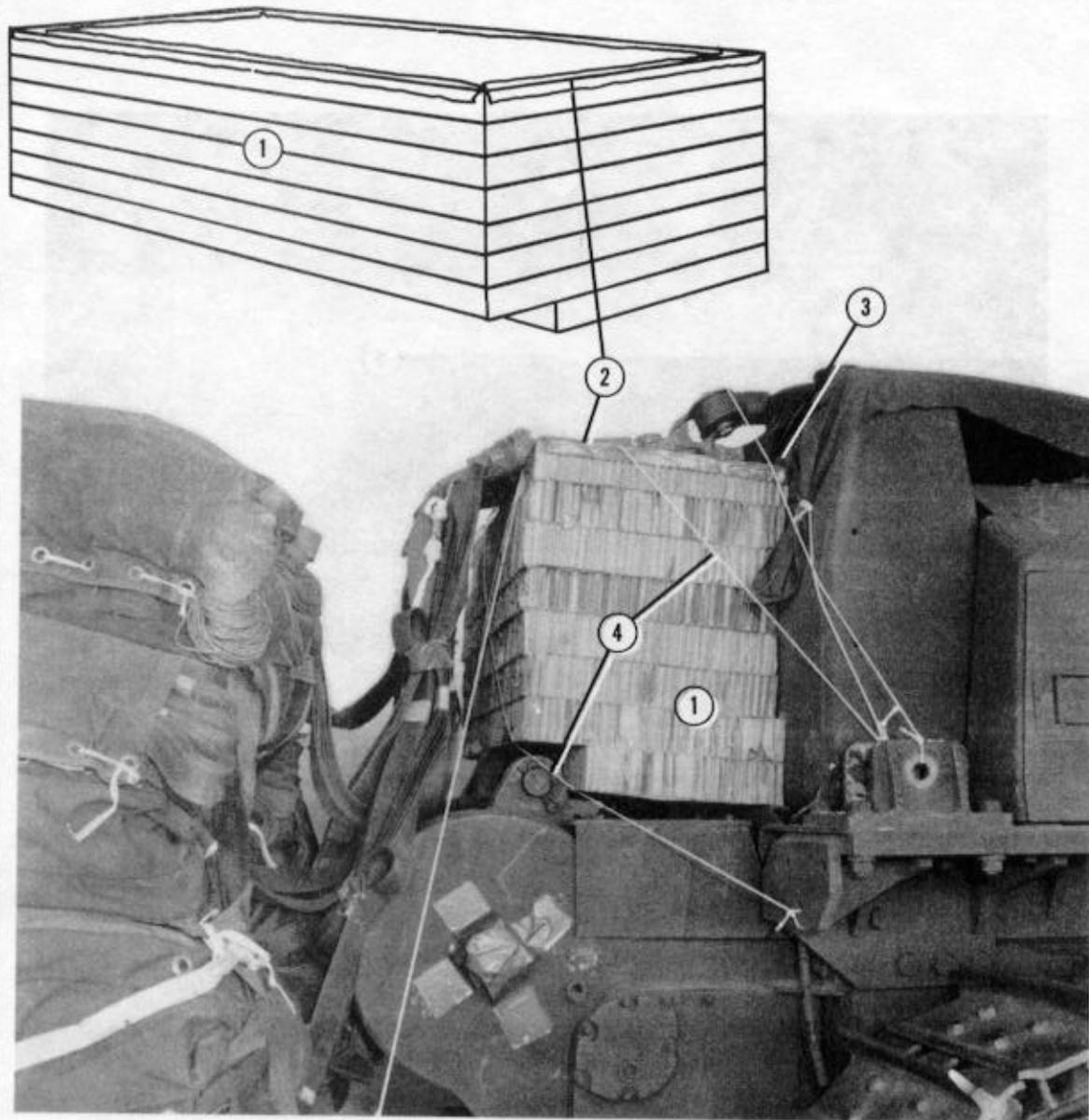
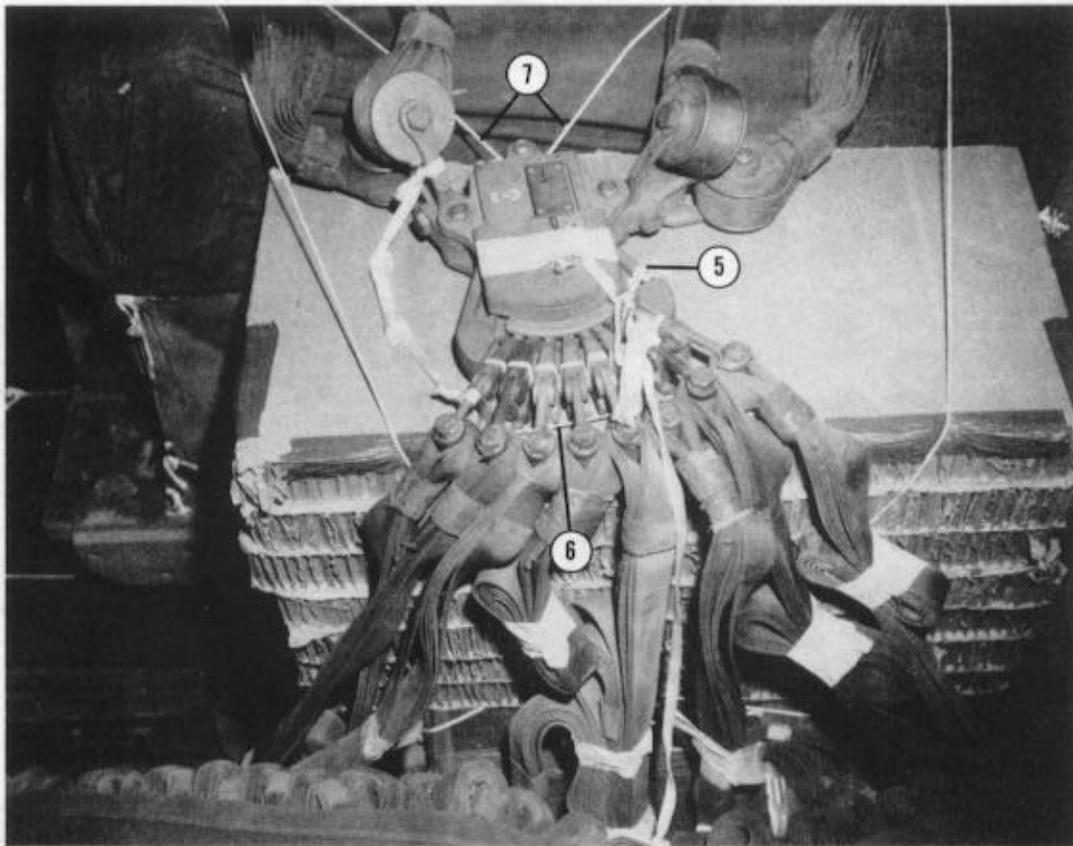


Figure 8-26. Parachutes stowed



- ① Build an eight-layer honeycomb stack with a bottom layer of 14- by 36-inch honeycomb and the next seven layers of 18- by 36-inch honeycomb. Glue the layers of honeycomb together.
- ② Tape the edges of the honeycomb where type III nylon cord will touch.
- ③ Place the honeycomb stack on the rear of the dozer, centered on top of the winch and against the fuel tank.
- ④ Tie the honeycomb stack in place with two lengths of type III nylon cord.

Figure 8-27. M-2 cargo parachute release assembly installed

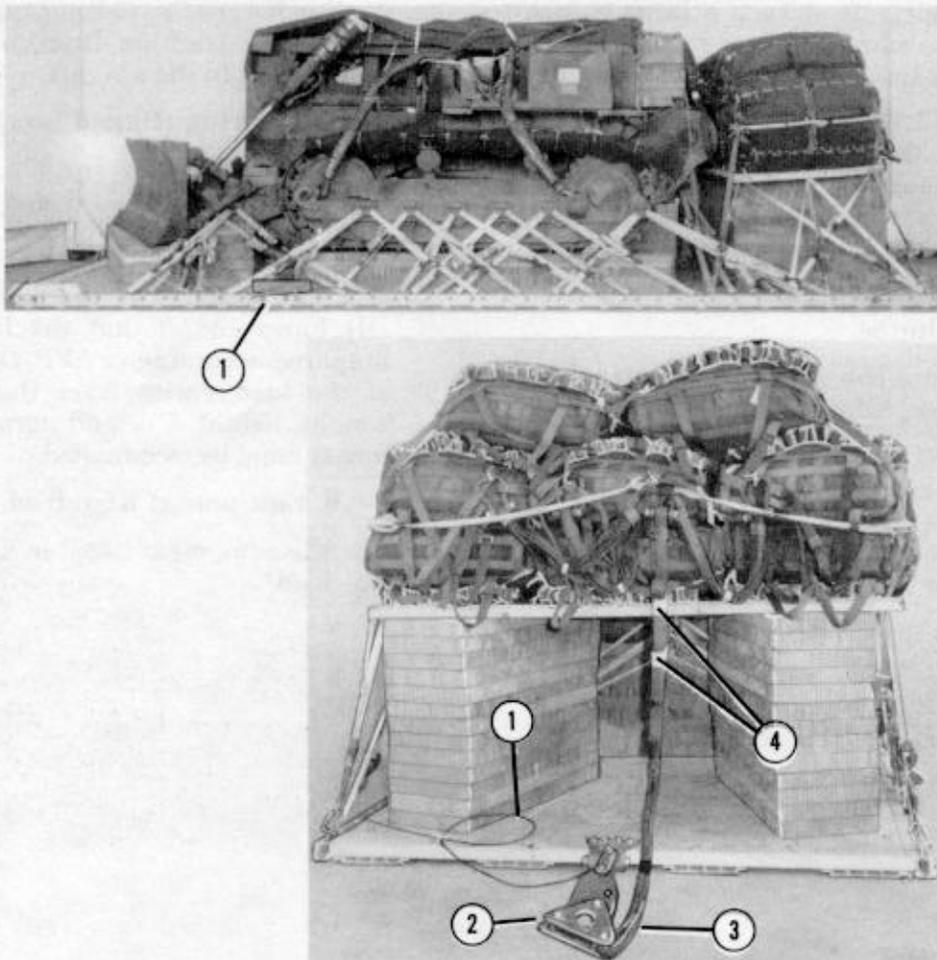


- ⑤ Place the M-2 cargo parachute release assembly on top of the honeycomb stack and install it according to FM 10-500/TO 13C7-1-5.
- ⑥ Safety the top of the release assembly according to FM 10-500/TO 13C7-1-5.
- ⑦ Safety the bottom of the release assembly according to FM 10-500/TO 13C7-1-5.

Figure 8-27. M-2 cargo parachute release assembly installed (continued)

8-15. Installing Extraction System

Install the EFTC extraction system as shown in Figure 8-28.



- ① Attach the type V EFTA mounting brackets to the rear mounting holes in the left platform rail. Install an actuator with a 20-foot cable to the EFTA mounting brackets according to FM 10-500/TO 13C7-1-5.
- ② Use a 5-inch latch assembly adapter and attach the latch assembly to the extraction bracket according to FM 10-500/TO 13C7-1-5. Make sure the locking nut hole faces toward the left side of the platform.
- ③ Connect one end of a 9-foot (4-loop), type XXVI nylon webbing sling (deployment line) to the right spacer of the link assembly. Connect the free end to the center large suspension clevis on the three 3-foot (4-loop), type XXVI nylon webbing slings.
- ④ Fold the excess deployment line, and secure the folds in place with tape or 80-pound cotton webbing.

Figure 8-28. Extraction system installed

8-16. Installing Emergency Restraint Points

Install emergency restraint points on the load when it is to be dropped from C-130 or C-141 aircraft. Attach a large (1-inch) suspension clevis to the front hole of each tandem link on the front of the platform.

NOTE: The emergency restraints will be installed to the points in the aircraft. The clevises used as emergency restraint points may be placed on the load and installed in the aircraft.

8-17. Positioning Extraction Parachutes

Position the extraction parachutes as described below.

a. C-130 Aircraft. Place two heavy-duty 28-foot cargo extraction parachutes; a 60-foot (6-loop), type XXVI nylon webbing extraction line; and a four-point link assembly on the load for installation in the aircraft.

b. C-141 Aircraft. Place two heavy-duty 28-foot cargo extraction parachutes and a continuous 120-foot (6-loop), type XXVI nylon webbing extraction line on the load for installation in the aircraft.

8-18. Marking Rigged Load

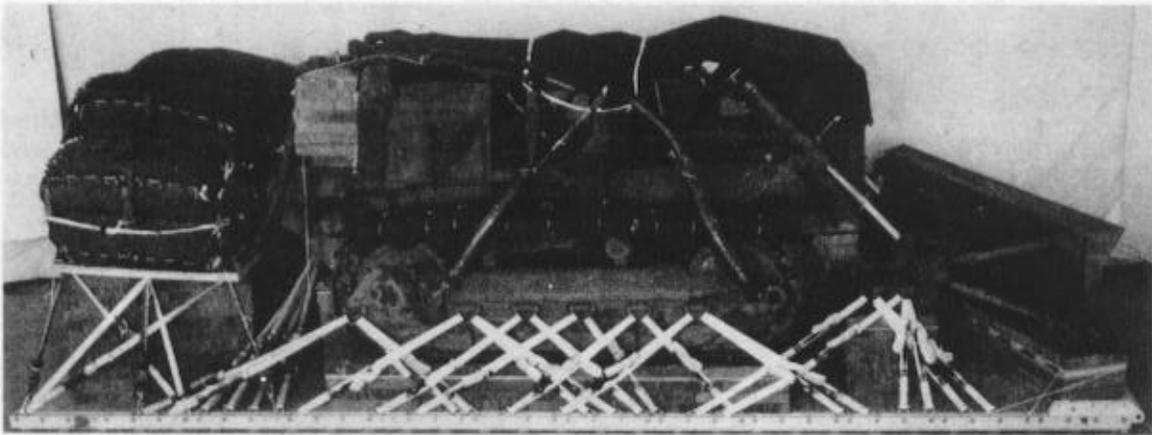
Mark the rigged load according to FM 10-500/TO 13C7-1-5 and as shown in Figure 8-29. Complete DD Form 1387-2 (Special Handling Data/Certification), and securely attach it to the load. Indicate on DD Form 1387-2 that the load has been prepared according to AFR 71-4/TM 38-250. If the load varies from that shown, the weight, height, CB, and parachute requirements must be recomputed.

8-19. Equipment Required

Use the equipment listed in Table 8-1 to rig this load.

CAUTION

Make the final rigger inspection required by FM 10-500 TO 13C7-1-5 before the load leaves the rigging site



C|B

RIGGED LOAD DATA

Weight:	Load shown	36,140 pounds
	Maximum allowed	37,100 pounds
Height		98 inches
Width		108 inches
Length		304 inches
Overhang:	Front	5 inches
	Rear	11 inches
CB (from front edge of platform)		152 inches
Extraction System		EFTC

Figure 8-29. Tractor-dozer rigged for low-velocity airdrop

Table 8-1. Equipment required for rigging the type I, D-5B tractor-dozer for low-velocity airdrop

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive, paste, 1-gal	As required
3990-00-937-0272	Binder, load, 10,000-lb	6
4030-00-090-5354	Clevis, suspension, 1-in (large)	15
4030-00-432-2516	Clevis, screw-pin	4
8305-00-242-3593	Cloth, cotton duck, 60-in	As required
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-434-5782	Coupling, airdrop, extraction force transfer, w 24-ft cable	1
1670-00-360-0328	Cover, clevis, large	6
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 (sling/extraction line panel)	2
1670-01-064-4454	Line, extraction, type XXVI nylon webbing: 60-ft (6-loop) (for C-130 aircraft) or	1
1670-01-062-6312	120-ft (6-loop) (for C-141 aircraft)	1
1670-00-006-2752	Link assembly, four-point	1
	Lumber:	
5510-00-220-6146	2- by 4- by 18-in	9
5510-00-220-6448	2- by 6- by 37-in	2
5510-00-220-6448	2- by 6- by 96-in	2
5315-00-010-4659	Nail, steel wire, common, 8d	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in:	28 sheets
	8- by 16-in	(1)
	12- by 36-in	(1)
	14- by 24-in	(14)
	14- by 36-in	(1)
	16- by 36-in	(1)
	16- by 54-in	(8)
	18- by 36-in	(7)
	18- by 48-in	(26)
	18- by 96-in	(4)
	20- by 24-in	(8)
	20- by 96-in	(8)
	24- by 36-in	(2)
	32- by 36-in	(1)
	36- by 40-in	(9)
	36- by 54-in	(8)
	36- by 56-in	(9)
1670-01-016-7841	Parachute, cargo, G-11C	8
1670-00-040-8135	Parachute, cargo extraction, 28-ft, heavy-duty	2

Table 8-1. Equipment required for rigging the type I, D-5B tractor-dozer for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
	Platform, AD, type V, 24-ft:	1
	Bracket:	
1670-01-162-2375	Inside EFTA	(2)
1670-01-162-2374	Outside EFTA	(2)
1670-01-162-2372	Clevis, load tiedown	(68)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link	(2)
5530-00-128-4981	Plywood, 3/4- by 48- by 96-in:	5 sheets
	14- by 24-in	(2)
	18- by 96-in	(2)
	20- by 60-in	(4)
	27- by 52-in	(2)
	36- by 40-in	(1)
	36- by 56-in	(1)
	48- by 96-in	(1)
1670-01-097-8817	Release, cargo parachute, M-2 (with modified components)	1
	Sling, cargo, airdrop:	
	For deployment line:	
1670-00-432-2499	3-ft (4-loop), type XXVI nylon webbing	3
1670-00-432-2501	9-ft (4-loop), type XXVI nylon webbing or	1
1670-01-062-6305	9-ft (4-loop), type XXVI nylon webbing	1
	For lifting:	
1670-01-062-6307	12-ft (4-loop), type XXVI nylon webbing	4
	For riser extensions:	
1670-00-432-2494	120-ft (3-loop), type X nylon webbing or	8
1670-01-062-6311	120-ft (2-loop), type XXVI nylon webbing	8
1670-00-998-0116	Strap, parachute release, multicut, comes w 3 knives	2
7510-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft	57
	Webbing:	
8305-00-268-2411	Cotton, 80-lb	As required
	Nylon, tubular:	
8305-00-082-5752	1/2-in, 1,000-lb, natural	As required
8305-00-268-2455	1-in, 4,000-lb, olive drab	As required
8305-00-261-8584	Nylon, type X, treated, 8,700-lb, olive drab	As required

CHAPTER 9**RIGGING THE JOHN DEERE 450G LT TRACKED COMMERCIAL BULLDOZER ON
A 16-FOOT, TYPE V PLATFORM FOR LOW-VELOCITY AIRDROP****9-1. Description of Load**

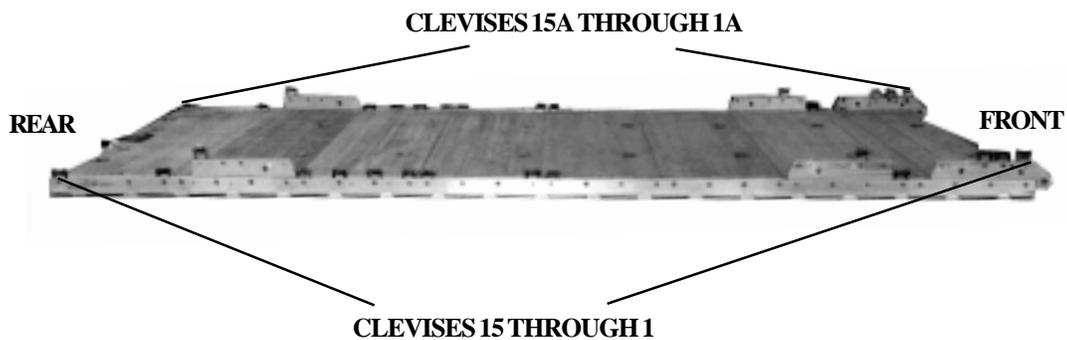
The John Deere 450G Lt Full Tracked Commercial Bulldozer is rigged on a 16-foot, type V airdrop platform with four G-11B cargo parachutes. The unrigged dozer weighs 18,080 pounds reduced to 17,440 pounds with the ROPS removed. It is 180 1/3 inches long. It is 97 inches wide and 108 inches high reduced to 77 inches with the ROPS removed and the back seat back lowered.

9-2. Preparing Platform

Prepare a 16-foot, type V airdrop platform as shown in Figure 9-1.

NOTES:

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



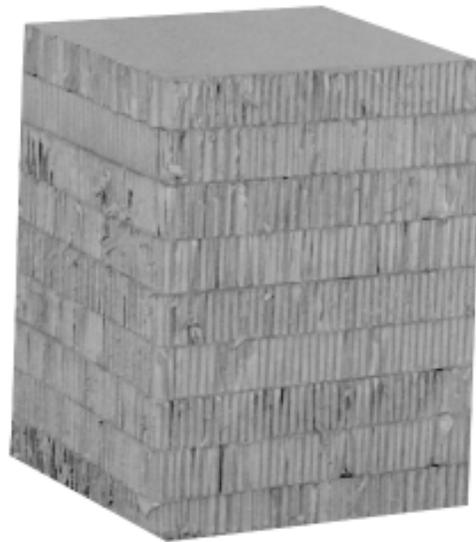
Step:

1. Inspect, or assemble and inspect, a 16-foot, type V airdrop platform as outlined in TM 10-1670-268-20&P/TO 13C7-52-22.
2. Install a tandem link to the front of each platform side rail using holes 1, 2, and 3.
3. Install a suspension link on bushings 6, 7, 8 for forward and 25, 26, and 27 for aft on each platform side rail.
4. Install a clevis on bushings 1, 2, and 3 on the tandem links.
5. Install a clevis on bushing 2 on the forward suspension links.
6. Install a clevis on bushing 3 on the aft suspension links.
7. Starting at the front of each platform side rail, install clevises on the bushings bolted on holes 5, 16, 17, 20, 21, 22, 23, 24, 29, and 32.
8. Starting at the front of the platform, number the clevises 1 through 15 on the right side and 1A through 15A on the left side.
9. Label the tiedown rings according to FM 10-500-2/TO 13C7-1-5.

Figure 9-1. Platform prepared

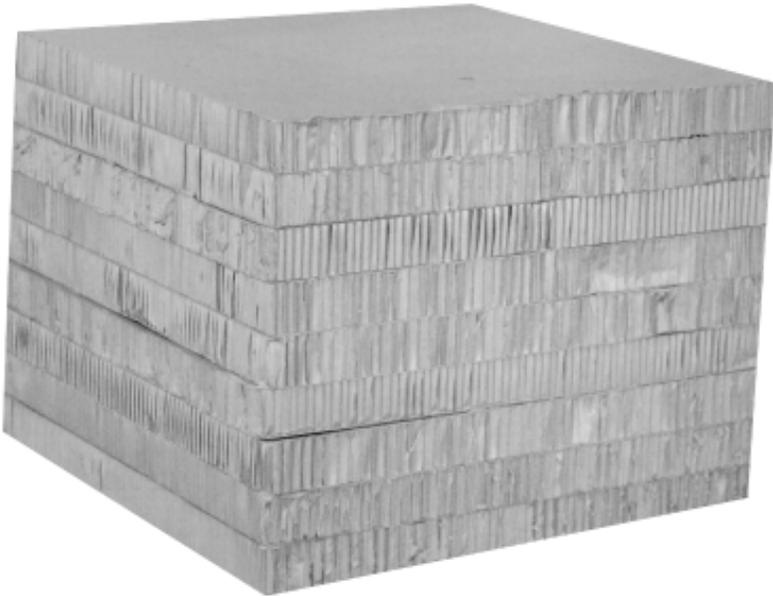
9-3. Building and Positioning Honeycomb Stacks

Build the honeycomb stacks as shown in Figures 9-2 through 9-6. Position the honeycomb stacks as shown in Figure 9-7.



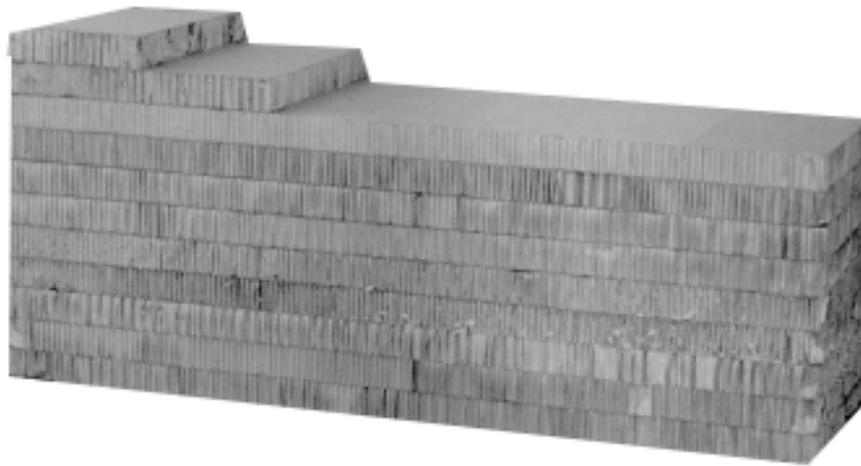
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
1	9	21	21	Honeycomb	Glue the pieces together.

Figure 9-2. Honeycomb stack 1 prepared



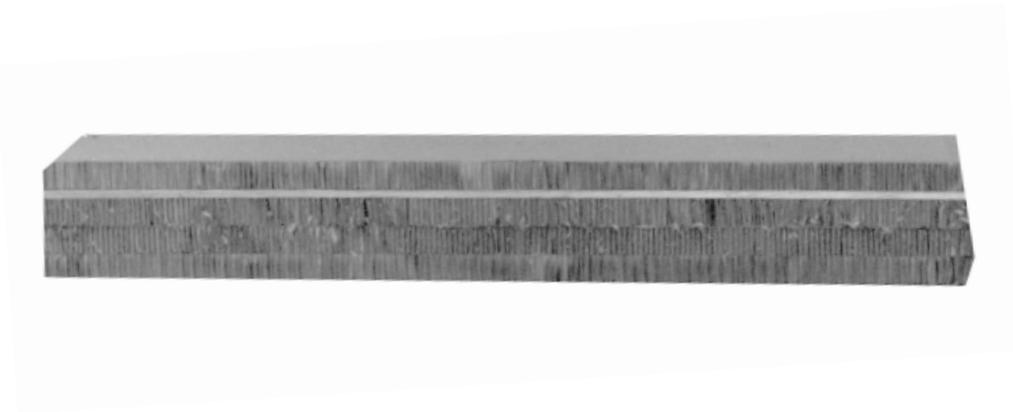
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
2	9	36	36	Honeycomb	Glue the pieces together.

Figure 9-3. Honeycomb stack 2 prepared



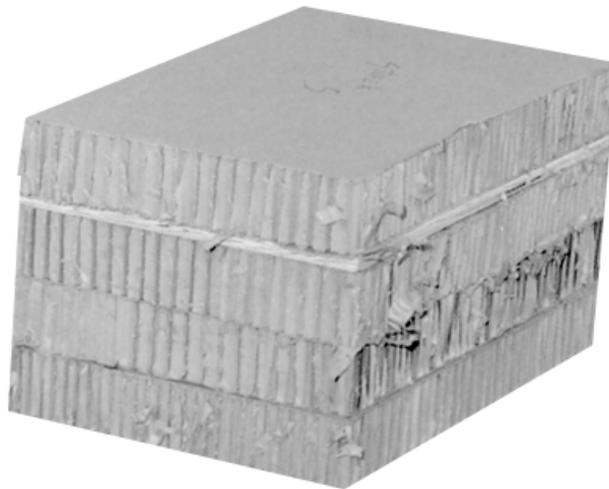
Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
3	9	28	76	Honeycomb	Glue to form the base. Glue to base flush with rear edge. Glue a 28-inch by 26-inch piece flush with rear edge.
	1	28	26	Honeycomb	
	1	28	13	Honeycomb	

Figure 9-4. Honeycomb stack 3 prepared



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
4 and 5	3	18	96	Honeycomb 3/4-inch plywood Honeycomb	Glue to form the base.
	1	18	96		Glue to base.
	1	18	96		Glue to plywood.

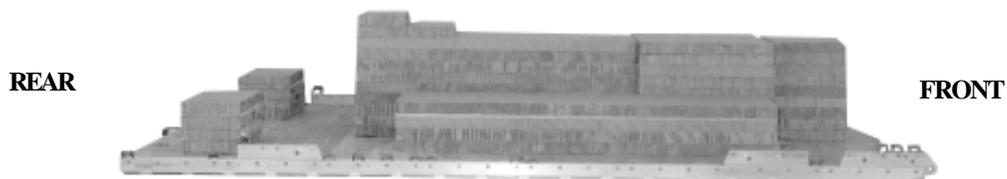
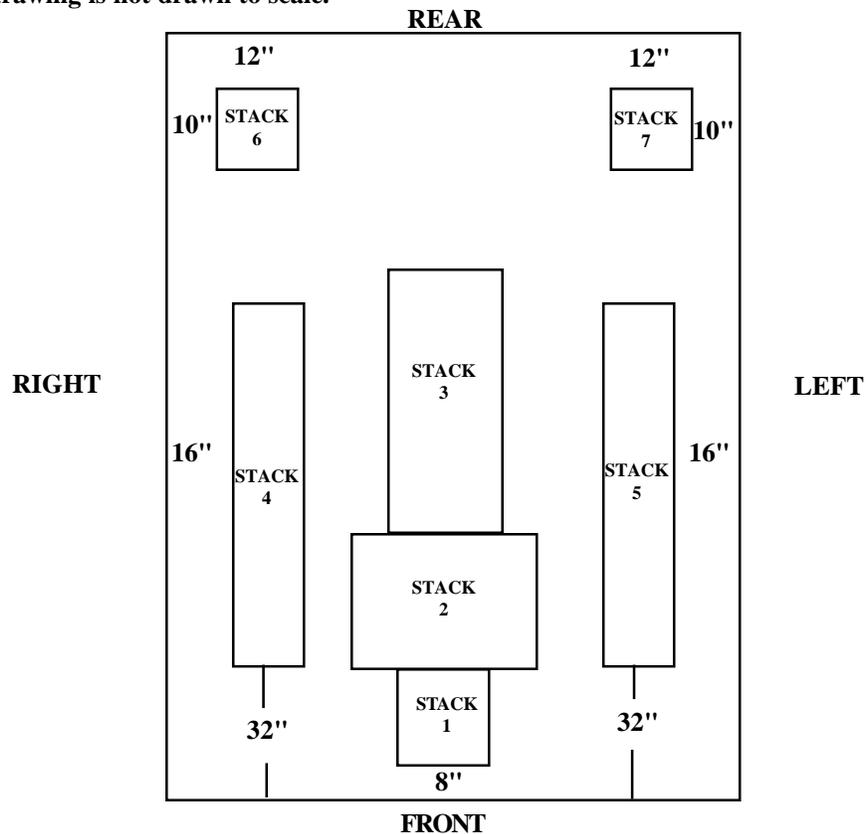
Figure 9-5. Honeycomb stacks 4 and 5 prepared



Stack Number	Pieces	Width (Inches)	Length (Inches)	Material	Instructions
6 and 7	3	24	15	Honeycomb 3/4-inch plywood Honeycomb	Glue to form the base.
	1	24	15		Glue to base.
	1	24	15		Glue to plywood.

Figure 9-6. Honeycomb stacks 6 and 7 prepared

NOTE: This drawing is not drawn to scale.



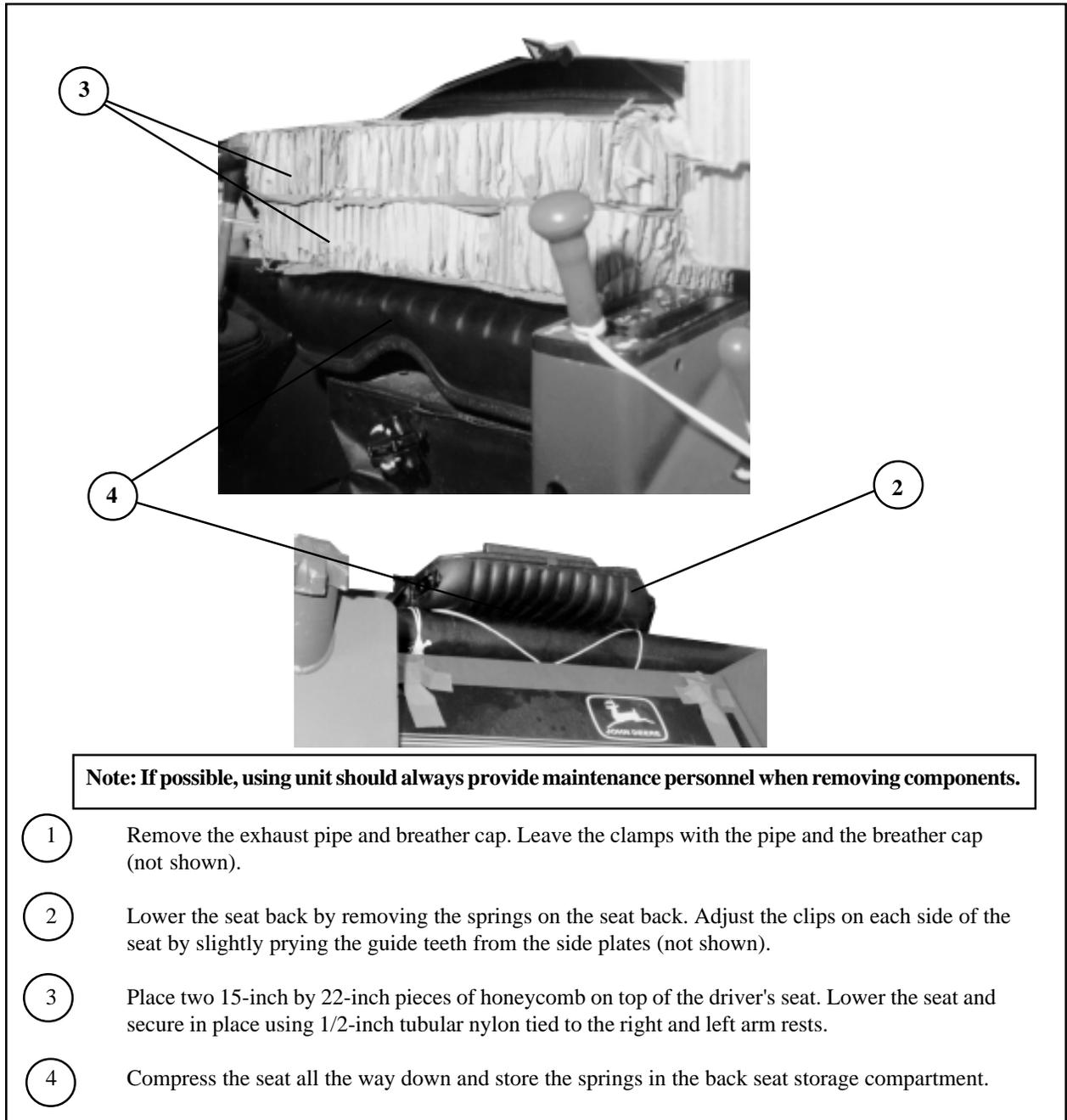
Step:

1. Position stack 1 centered and 8 inches from the front edge of the platform.
2. Position stack 2 centered and flush with the rear of stack 1.
3. Position stack 3 centered and flush with the rear of stack 2.
4. Position stacks 4 and 5 on each side of the platform 32 inches from the front edge of the platform and 16 inches from the sides of the platform.
5. Position stacks 6 and 7 on each side of the platform 12 inches from the rear edge of the platform and 10 inches from the sides of the platform.

Figure 9-7. Honeycomb stacks positioned on platform

9-4. Preparing Dozer

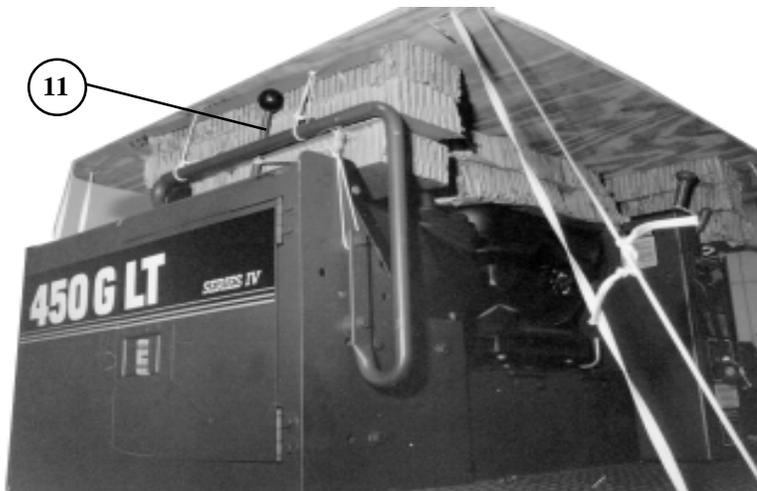
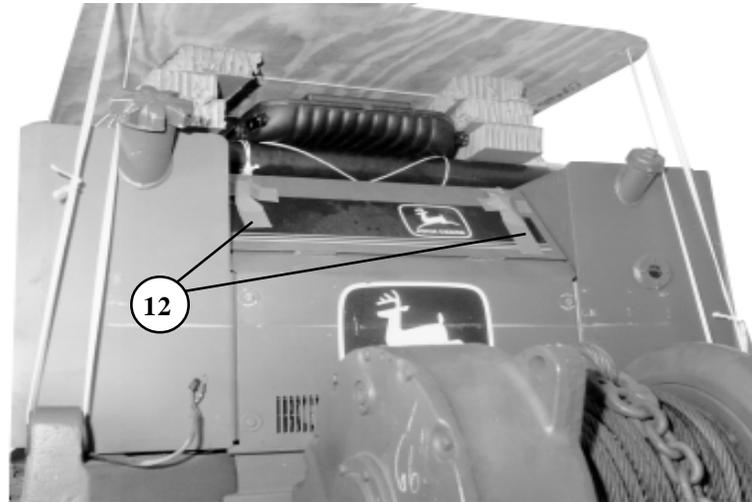
Prepare the dozer as shown in Figure 9-8.



Note: If possible, using unit should always provide maintenance personnel when removing components.

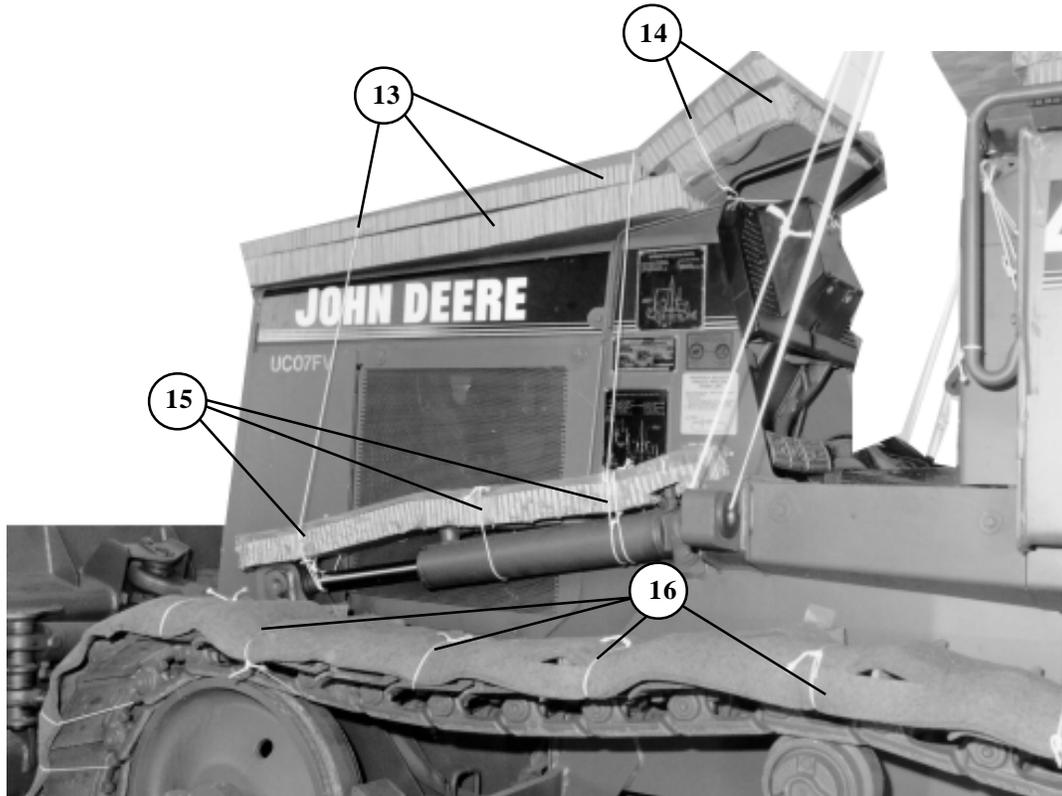
- 1 Remove the exhaust pipe and breather cap. Leave the clamps with the pipe and the breather cap (not shown).
- 2 Lower the seat back by removing the springs on the seat back. Adjust the clips on each side of the seat by slightly prying the guide teeth from the side plates (not shown).
- 3 Place two 15-inch by 22-inch pieces of honeycomb on top of the driver's seat. Lower the seat and secure in place using 1/2-inch tubular nylon tied to the right and left arm rests.
- 4 Compress the seat all the way down and store the springs in the back seat storage compartment.

Figure 9-8. Dozer prepared



- 10 Lay the exhaust pipe long ways behind the seat and secure in place with type III nylon cord (not shown).
- 11 Secure to a convenient point the winch control lever in the forward position with type III nylon cord.
- 12 Place a piece of honeycomb covering the floor in the storage compartment behind the seat. Pad the breather cap with cellulose wadding and place it on top of the honeycomb. Place the toolbox and all the other dozer accessories in the compartment. Use honeycomb filler to hold the equipment in place. Close the door and tape the latches.

Figure 9-8. Dozer prepared (continued)

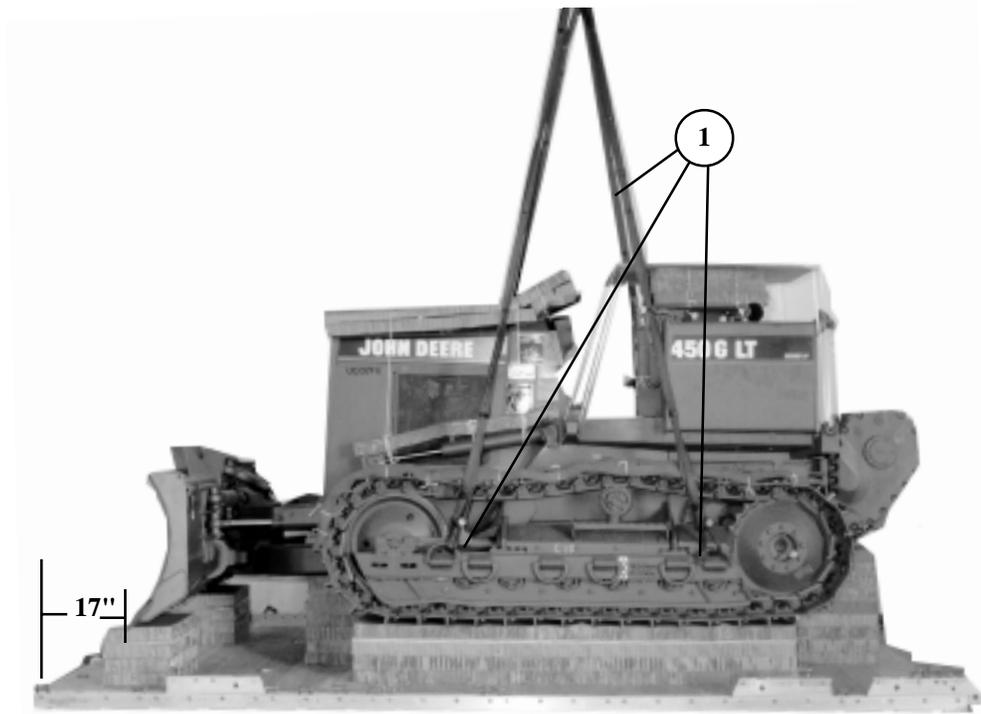


- 13 Cut two 28-inch by 60-inch pieces of honeycomb to cover the engine compartment. Cut holes for the breather and exhaust pipe openings in the bottom layer of honeycomb. Place the honeycomb on the dozer and secure it to a convenient point with type III nylon cord.
- 14 Cut two 28-inch by 12-inch pieces of honeycomb. Place them next to the 28-inch by 60-inch pieces and secure them to a convenient point with type III nylon cord.
- 15 Cut two 6-inch by 48-inch pieces of honeycomb. Place one piece on each hydraulic arm and secure in place to a convenient point with type III nylon cord.
- 16 Cover the top half of the track with 1/2-inch felt and secure the felt to the track with type III nylon cord.

Figure 9-8. Dozer prepared (continued)

9-5. Lifting and Positioning Dozer

Lift and position the dozer as shown in Figure 9-9.



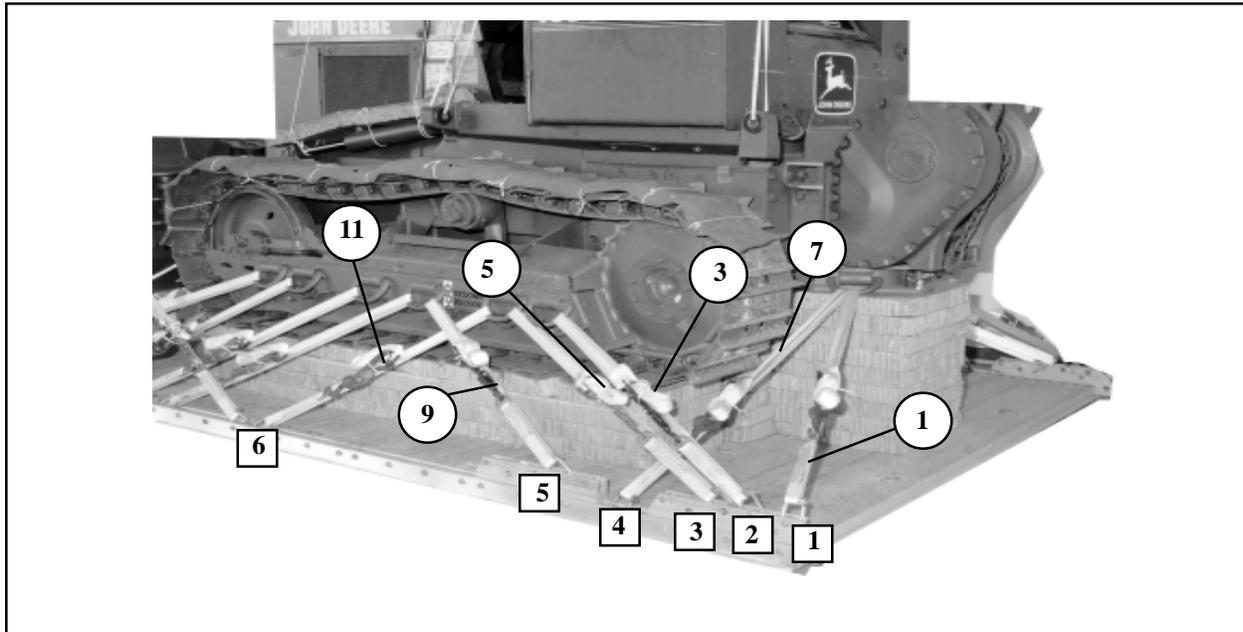
Note: The 17-inch measurement will be taken from the blade base. Place a line on top of stacks 6 and 7, 17 inches from the rear of the platform prior to positioning the dozer.

- ① Attach a 12-foot (4-loop), type XXVI nylon sling to points 2 and 7 on both the right and left sides of the dozer with large clevises.
- ② Position the dozer centered on the platform with the bottom of the blade 17 inches from the rear edge of the platform.
- ③ Remove the slings.

Figure 9-9. Dozer lifted and positioned on platform

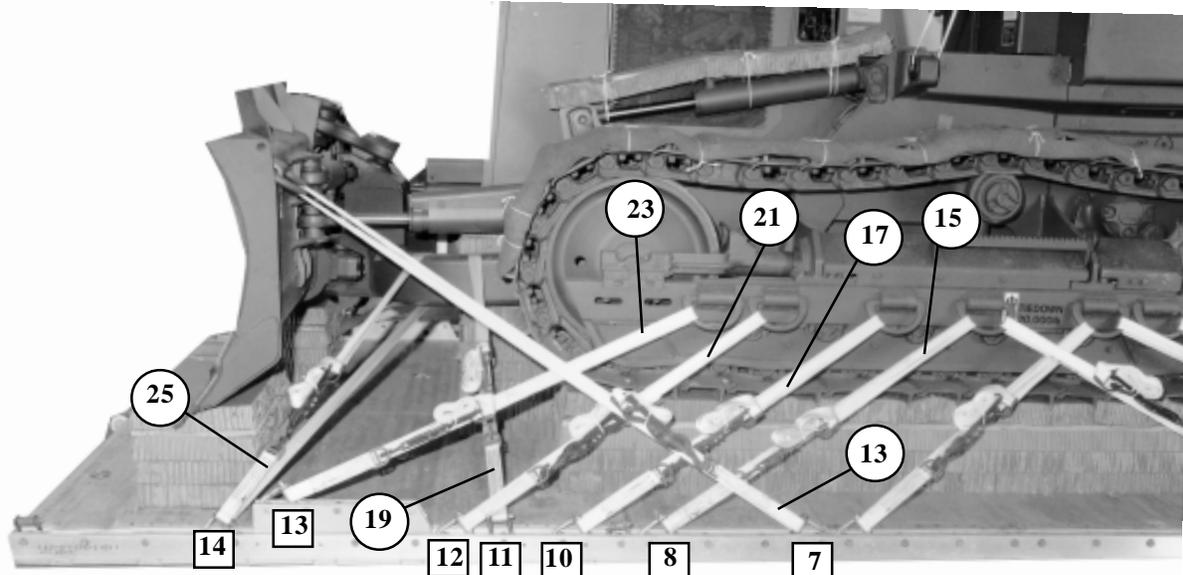
9-6. Lashing Load to Platform

Lash the load to the platform as shown in Figure 9-10.



Lashing Number	Tiedown Clevis Number	Instructions
1	1	Pass lashing: To tiedown point 8, left side.
2	1A	To tiedown point 8, right side.
3	2	To tiedown point 7, left side.
4	2A	To tiedown point 7, right side.
5	3	To tiedown point 6, left side.
6	3A	To tiedown point 6, right side.
7	4	To tiedown point 8, left side.
8	4A	To tiedown point 8, right side.
9	5	To tiedown point 5, left side.
10	5A	To tiedown point 5, right side.
11	6	To tiedown point 6, left side.
12	6A	To tiedown point 6, right side.

Figure 9-10. Load lashed to platform

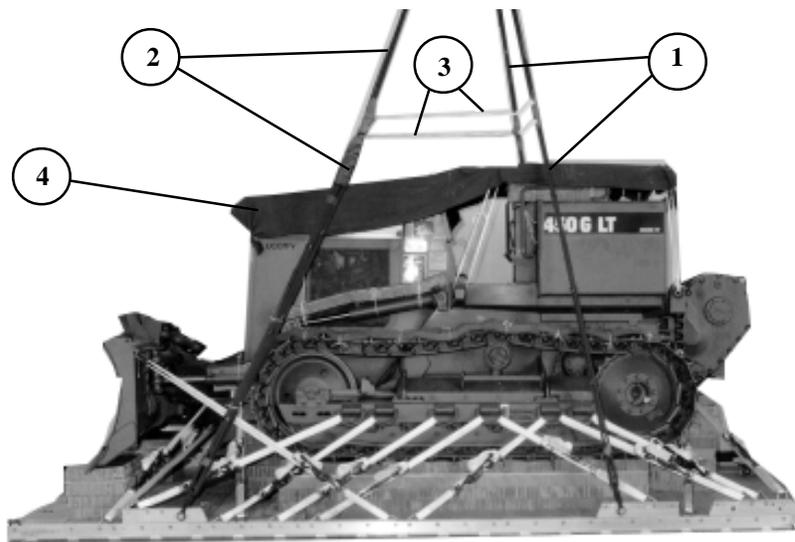


Lashing Number	Tiedown Clevis Number	Instructions
		Pass lashing:
13	7	To tiedown point 1, left side.
14	7A	To tiedown point 1, right side.
15	8	To tiedown point 5, left side.
16	8A	To tiedown point 5, right side.
17	10	To tiedown point 4, left side.
18	10A	To tiedown point 4, right side.
19	11	Around yoke of blade support, left side.
20	11A	Around yoke of blade support, right side.
21	12	To tiedown point 3, left side.
22	12A	To tiedown point 3, right side.
23	13	To tiedown point 2, left side.
24	13A	To tiedown point 2, right side.
25	14	Around yoke of blade support, left side.
26	14A	Around yoke of blade support, right side.

Figure 9-10. Load lashed to platform (continued)

9-7. Installing Suspension Slings, Deadman's Tie and Load Cover

Install the suspension slings, deadman's tie and the load cover as shown in Figure 9-11.

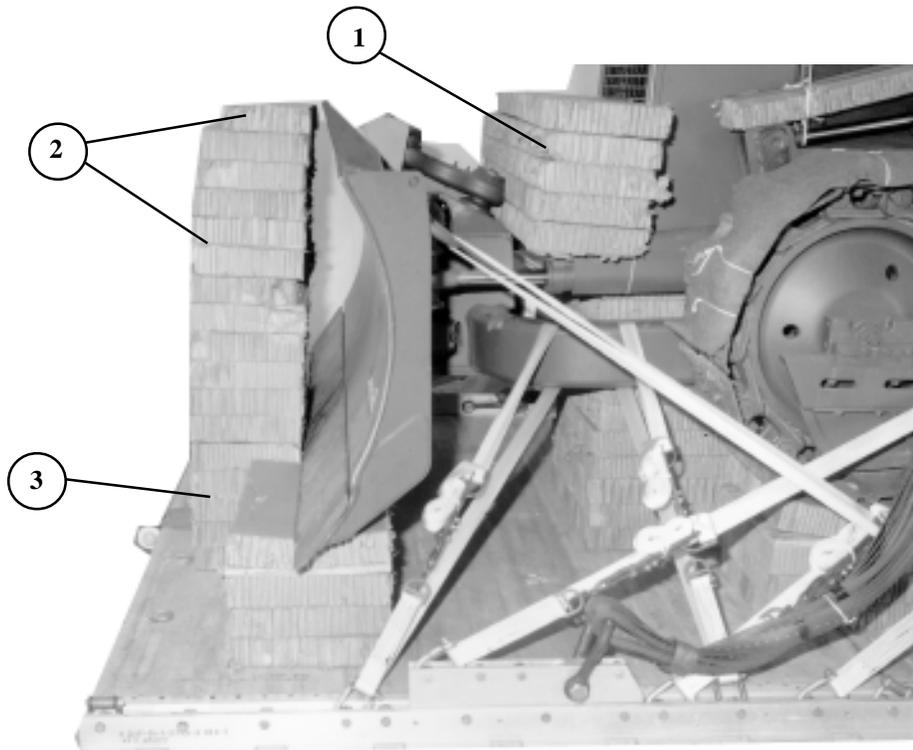


- ① Attach a 16-foot (4-loop), type XXVI nylon suspension sling to a large clevis and attach that to each front suspension link.
- ② Run both ends of a 16-foot (4-loop), type XXVI nylon suspension sling through a large clevis and attach that to each rear suspension link. Join the ends of each sling together with a 3 3/4-inch link and a 9-foot (4-loop), type XXVI suspension sling. Pad each 3 3/4-inch link.
- ③ Raise the slings and install the deadman's tie according to FM 10-500-2/TO 13C7-1-5.
- ④ Place a 60-inch by 120-inch piece of canvas over the top of the dozer as a load cover and secure the cover in place with type III nylon cord to a convenient point.

Figure 9-11. Suspension slings, deadman's tie and load cover installed

9-8. Building and Positioning Parachute Stowage Platform Support Stacks

Build and position two parachute stowage platform support stacks as shown in Figure 9-12.



- ① Cut and glue five 12-inch by 48-inch pieces of honeycomb together and place the stack on top of the blade support arms. Crush the bottom piece down to level the stack out.
- ② Cut and glue sixteen 12-inch by 36-inch pieces of honeycomb together. Cut and glue a 9-inch by 36-inch piece of honeycomb on top.
- ③ Position the honeycomb stack between stacks 6 and 7, flush with the blade. The top outside edge of the top piece of honeycomb on the stack will be to the front of the load.

Figure 9-12. Parachute stowage platform support stacks built and positioned

9-9. Building Parachute Stowage Platform

Build a parachute stowage platform as shown in Figure 9-13.

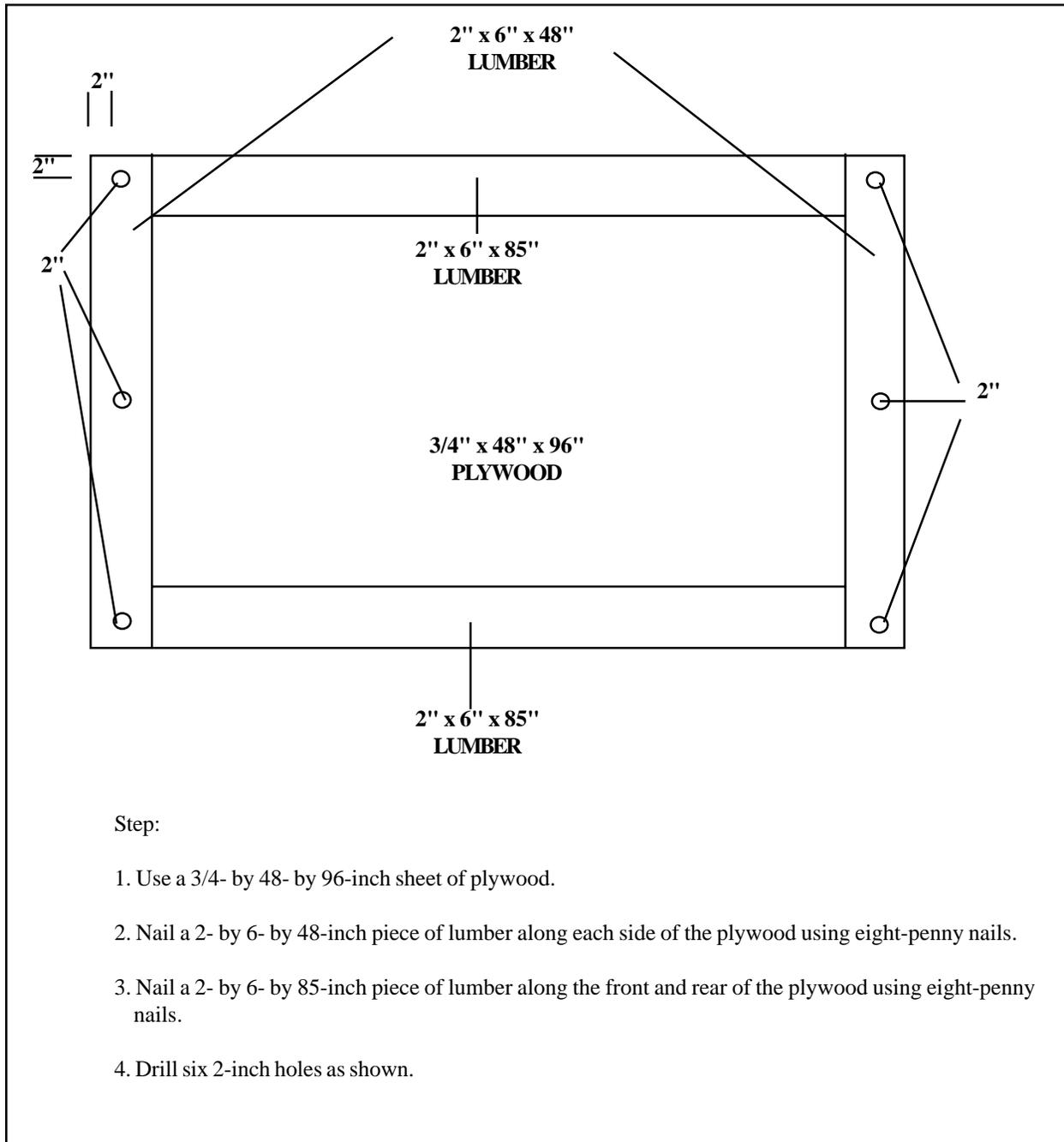
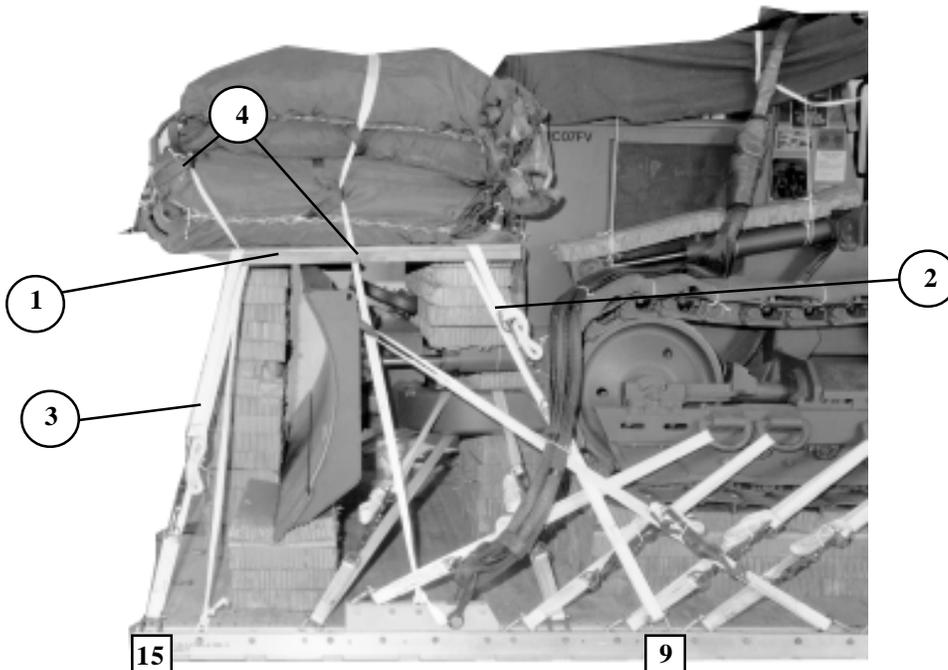


Figure 9-13. Parachute stowage platform built

9-10. Installing Parachute Stowage Platform, Preparing and Stowing Cargo Parachutes

Install the parachute stowage platform on top of the support stacks.
Prepare and stow the cargo parachutes as shown in Figure 9-14.



- ① Set the stowage platform on the two stacks of honeycomb.
- ② Run a 15-foot tiedown strap through clevis 9, up through the forward hole of the stowage platform. Bind the strap with a D-ring and a load binder. Lash the left side using clevis 9A.
- ③ Run a 15-foot tiedown strap through clevis 15, up through the rear hole of the stowage platform. Bind the strap with a D-ring and a load binder. Lash the left side using clevis 15A.
- ④ Prepare, stow and restrain four G-11B cargo parachutes according to FM 10-500-2/TO 13C7-1-5. Restrain the parachutes through the center holes of the stowage platform using bushing 2 on the rear suspension link on both sides of the platform and through the rear holes of the stowage platform using platform bushing 32 on both sides of the platform.

Figure 9-14. Parachute stowage platform installed and cargo parachutes prepared and stowed

9-11. Installing Extraction System

Install the EFTC as shown in Figure 9-15.

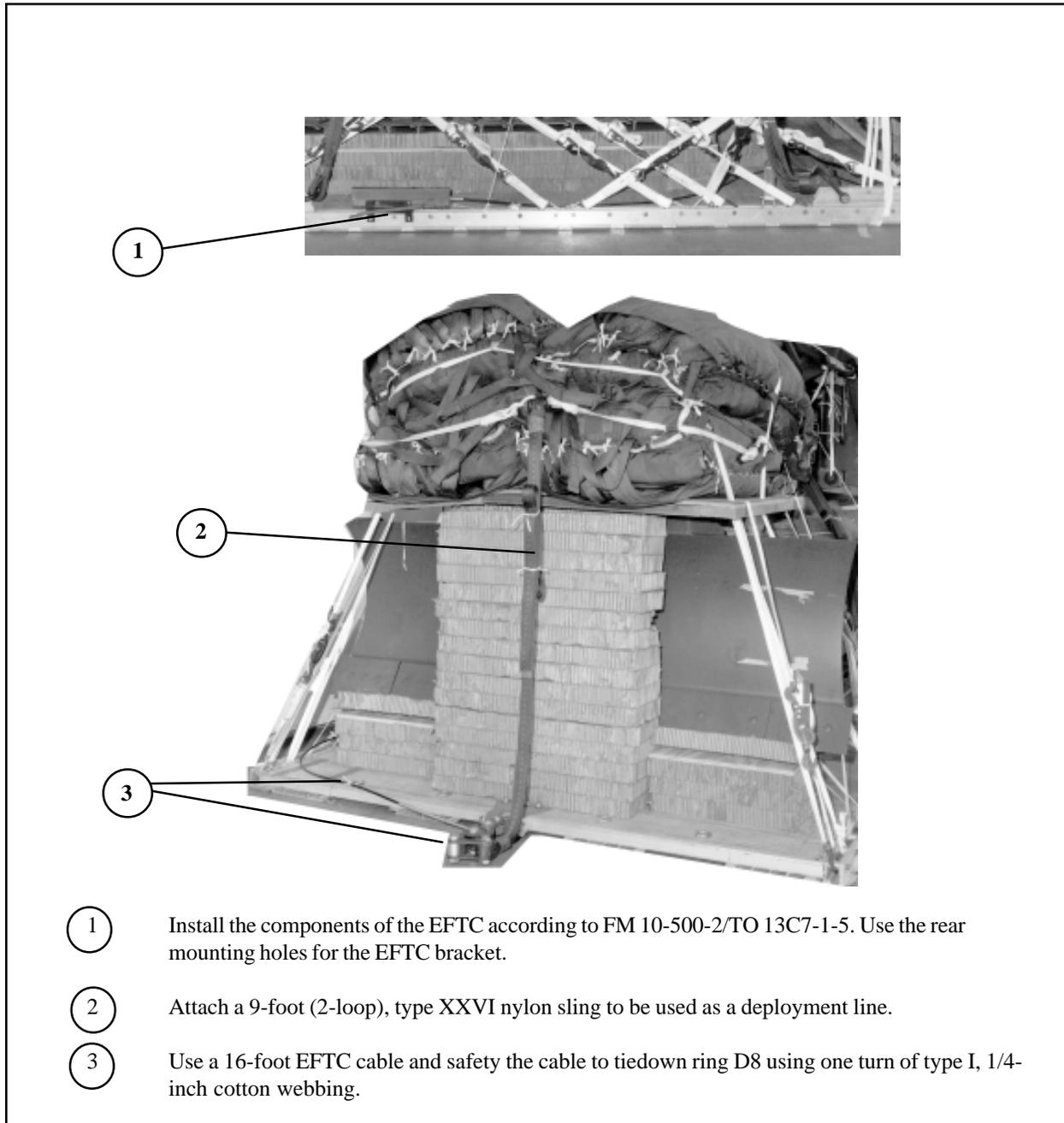


Figure 9-15. Extraction system installed

9-12. Installing Parachute Release

Prepare, attach, and safety an M-2 release according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 9-16.

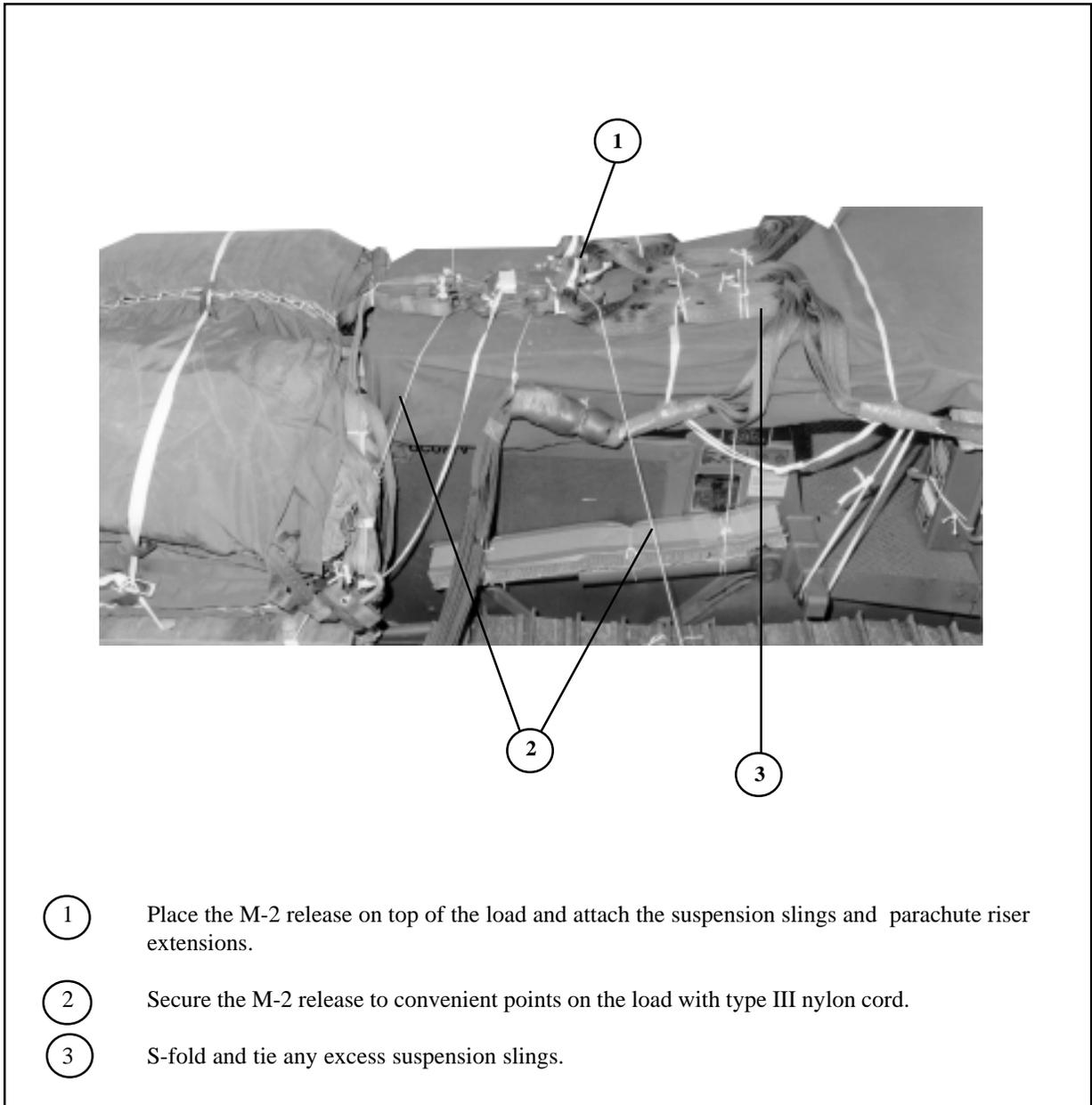


Figure 9-16. M-2 cargo parachute release installed

9-13. 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 line on the load for installation in the aircraft.

9-14. Installing Provisions for Emergency Restraints

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

9-15. Marking Rigged Load

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5 and as shown in Figure 9-17. Complete Shipper's Declaration for Dangerous Goods and affix to load. If the load varies from the one shown, the weight, height, CB, tip off curve, and parachute requirements must be recomputed.

9-16. Equipment Required

Use the equipment listed in Table 9-1 to rig the load shown in Figure 9-17.

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.....20,960 pounds

Height.....94 inches

Width.....108 inches

Length.....214 inches

Overhang: Front.....5 inches

Rear.....17 inches

Center of Balance (CB)
(from front edge of the platform).....84 inches

Extraction System.....EFTC

Figure 9-17. John Deere 450G Lt full-tracked bulldozer rigged on a 16-foot type V platform for low-velocity airdrop

Table 9-1. Equipment required for rigging the John Deere 450G Lt full-tracked commercial bulldozer on a 16-foot, type V airdrop platform 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)	4
8305-00-242-3593	Cloth, cotton duck, 60-in.	As required
4020-00-240-2146	Cord, nylon, type III, 550-lb.	As required
1670-00-434-5785	Coupling, airdrop extraction force transfer cable, 16-ft	1
	Cover:	
1670-00-360-0328	Clevis, large	1
1670-00-360-0329	Link, type IV	1
8305-00-958-3685	Felt, 1/2-in thick	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 C-130)	1
1670-01-107-7651	140-ft (3-loop), type XXVI (for C-141,C-5 or C-17)	1
1670-01-064-4452	60-ft (1-loop), type XXVI with towplate link (for C-17)	1
1670-00-783-5988	Link assembly, type IV	1
1670-00-753-3928	Pad, energy-dissipating, (honeycomb), 3- by 36- by 96-in:	22 sheets
	6- by 26-in	(6)
	12- by 36-in	(16)
	12- by 48-in	(5)
	15- by 22-in	(2)
	18- by 96-in	(8)
	21- by 21-in	(9)
	24- by 15-in	(8)
	28- by 12-in	(2)
	28- by 76-in	(9)
	36- by 36-in	(9)
	Parachute, cargo	
1670-01-016-7841	G-11B	4
	Parachute, cargo extraction	
1670-00-040-8135	28-ft	1
1670-01-063-3715	15-ft drogue (for C-17)	1
	Platform, airdrop, type V,16-ft:	
1670-01-162-2372	Clevis, assembly (type V)	(30)
1670-01-162-2376	Extraction bracket assembly	(1)
1670-01-162-2381	Tandem link assembly (Multipurpose link)	(4)
	Platform, stowage:	
5510-00-220-6148	Lumber, 2- by 6- by:	
	48-in	(2)
	85-in	(2)
5530-00-128-4981	Plywood, 3/4-in:	4 sheets
	18- by 96-in	2
	24- by 15-in	2

Table 9-1. Equipment required for rigging the John Deere 450G Lt full-tracked commercial bulldozer on a 16-foot, type V airdrop platform for low-velocity airdrop (continued)

National Stock Number	Item	Quantity
1670-01-097-8817	Release, cargo parachute, M-2	1
	Sling, cargo, airdrop:	
1670-01-062-6304	9-ft (2-loop), type XXVI	1
1670-01-062-6305	9-ft (4-loop), type XXVI	2
1670-01-062-6307	12-ft (4-loop), type XXVI	4
5340-01-062-6308	16-ft (4-loop), type XXVI	4
1670-00-040-8219	Strap, parachute release with fastener and knife	2
7501-00-266-5016	Tape, adhesive, 2-in	As required
1670-00-937-0271	Tiedown assembly, 15-ft	30
	Webbing:	
8305-00-268-2411	Cotton, 1/4-inch, type I	As required
8305-00-082-5752	Nylon, tubular 1/2-in	As required

GLOSSARY

ACB	attitude control bar	HQ	headquarters
AD	airdrop	in	inch
AFB	Air Force base	LAPE	low-altitude parachute- extraction
AFR	Air Force regulation	LAPES	low-altitude parachute- extraction system
AFTO	Air Force technical order	lb	pound
attn	attention	no	number
CB	center of balance	NSN	national stock number
d	penny	OVM	operator vehicle maintenance
DA	Department of the Army	psi	pounds per square inch
DC	District of Columbia	ROPS	roll-over protection structure
DD	Department of Defense	SL/CS	static line/connector strap
diam	diameter	TM	technical manual
EFTA	extraction force transfer actuator	TO	technical order
EFTC	extraction force transfer coupling	TRADOC	United States Army Training and Doctrine Command
FM	field manual	US	United States
ft	foot/feet	w	with
gal	gallon		

REFERENCES

- AFR 71-4/TM 38-250** **Packaging and Materials Handling: Preparing Hazardous Materials for Military Air Shipments**
- FM 10-500/TO 13C7-1-5** **Airdrop of Supplies and Equipment: Rigging Airdrop Platforms**
- TM 5-2410-227-15** **Operator's Organizational, Direct Support, General Support and Depot Maintenance Manual: Tractor, Full Tracked, DED, 7500 lb Drawbar Pull w/Dozer Blade, Backrip Scarifier (J. I. Case Model M-450) (FSN 2410-935-0714) and Loader, Scoop Type w/Fork Lift Attachment (J. I. Case Model M-450-L) (3805-131-4620)**
- TM 5-2410-231-10** **Operator's Manual: Tractor, Full Tracked, Low Speed, DED, 16,000 to 24,900 lb Drawbar Pull, 60 Inch Min Gage, Sectionalized, Air Transportable (Caterpillar Model D5) (FSN 2410-828-6865)**
- TM 10-1670-208-20&P/
TO 13C3-4-12** **Organizational Maintenance Manual Including Repair Parts and Special Tools List for Platforms, Types II Modular and LAPES/Airdrop Modular**
- TM 10-1670-215-23/
TO 13C5-1-102** **Organizational and DS Maintenance Manual Including Repair Parts and Special Tools List for Parachute, Cargo Types 12-Foot-Diameter High-Velocity, G-13 24-Foot-Diameter and 26-Foot-Diameter High-Velocity, G-14 34-Foot-Diameter and 38-Foot-Diameter RCAT, G-12C and G-12D 64-Foot-Diameter, G-11A 100-Foot-Diameter, 15-Foot-Diameter Extraction, 22-Foot-Diameter Extraction, 28-Foot-Diameter Extraction, 3-Foot-Square Pilot**
- TM 10-1670-268-20&P/
TO 13C7-52-22** **Organizational Maintenance Manual With Repair Parts and Special Tools List: Type V Airdrop Platform**
- TM 10-1670-286-20/
13C5-2-41** **Unit Maintenance Manual for Sling/Extraction Line Panel (Including Stowing Procedures)**
- AFTO Form 22** **Technical Order Publication Improvement Report**
- DA Form 2028** **Recommended Changes to Publications and Blank Forms**
- DD Form 1387-2** **Special Handling Data/Certification**