

CHAPTER 2

RIGGING HSSLADS CONTAINER LOADS

Section I

RIGGING THE CONTAINER

2-1. Description of Container

The HSSLADS container is an adjustable container made of an A-21 cargo cover and other airdrop items. The items are assembled and used together so that the container will withstand the shock of the parachute opening when airdropped at high speed.

2-2. Preparing Container

Dimensions of the load base in these procedures are typical. The size of the load base may change to fit other supply loads. Prepare the load base and HSSLADS container as shown in Figures 2-1, 2-2, and 2-3.

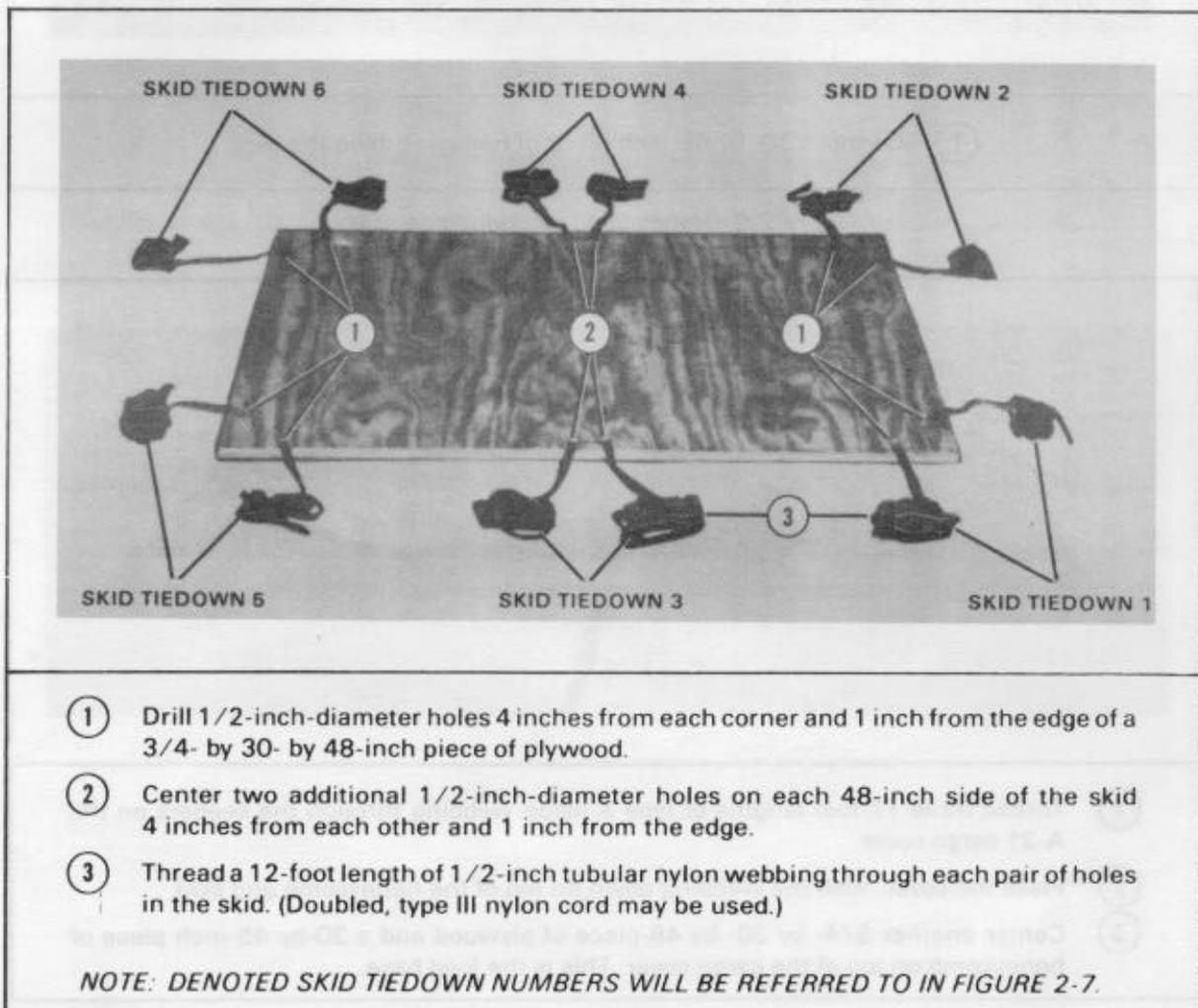
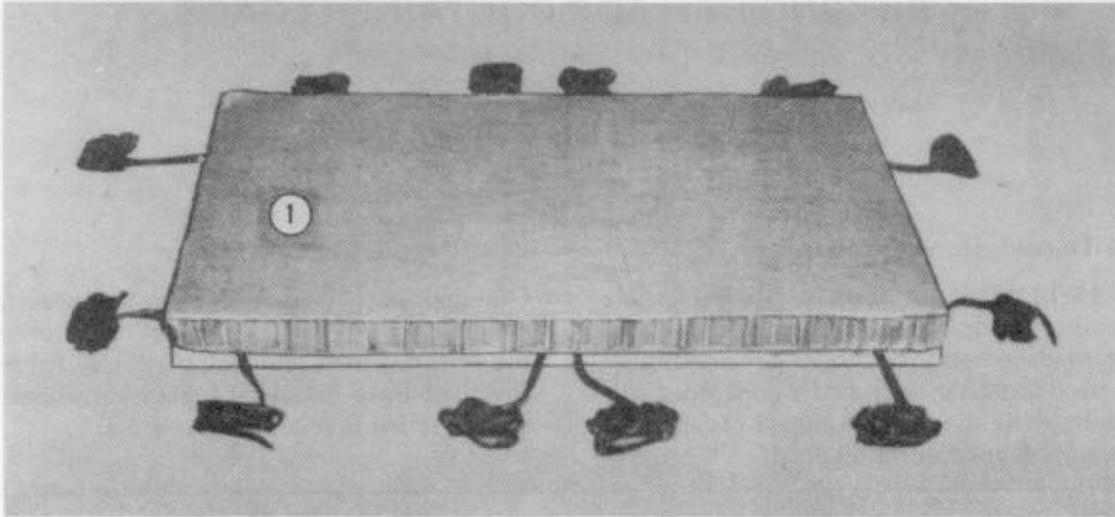
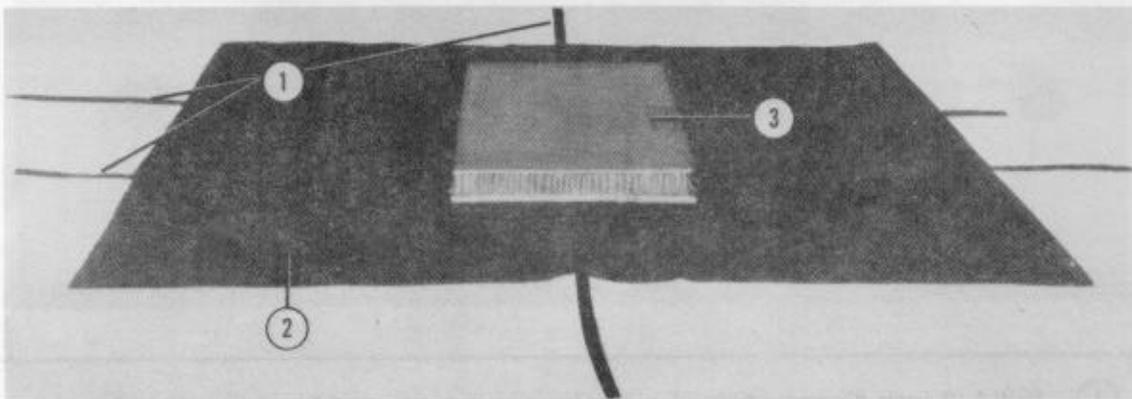


Figure 2-1. Skid prepared



- ① Center a 30- by 48-inch piece of honeycomb on the skid.

Figure 2-2. Honeycomb positioned on skid



- ① Thread three 12-foot lengths of type X nylon webbing through the keepers on the A-21 cargo cover.
- ② Place the cover, with the webbing down, on top of the honeycomb and skid.
- ③ Center another 3/4- by 30- by 48-piece of plywood and a 30-by 48-inch piece of honeycomb on top of the cargo cover. This is the load base.

Figure 2-3. A-21 container cover and load base placed on skid

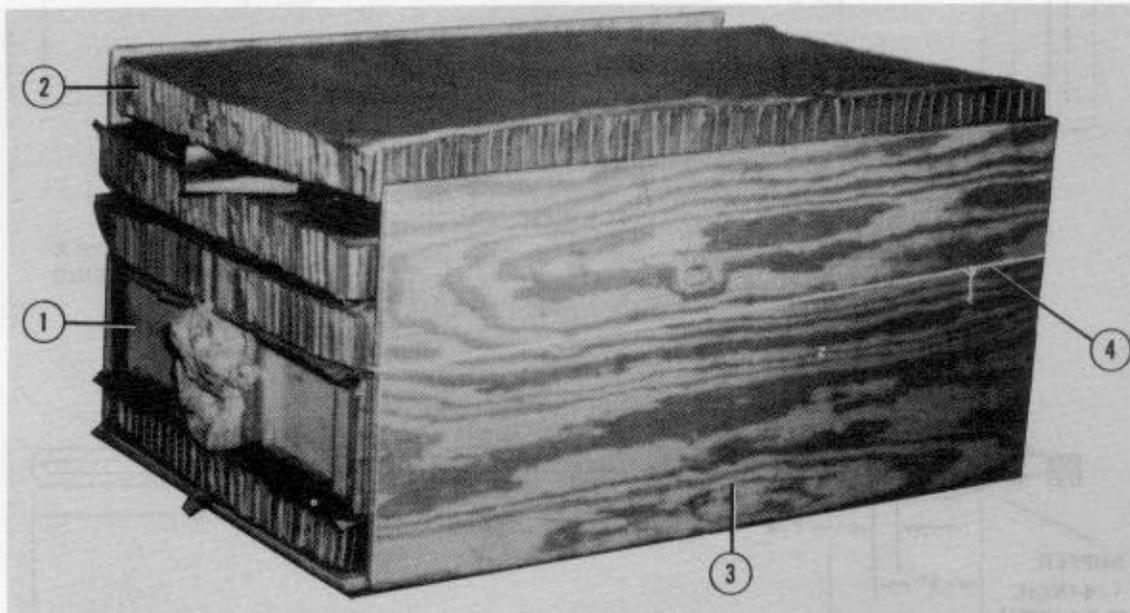
2-3. Loading Container

Place the items to be airdropped on the honeycomb in the manner shown in Figure 2-4 and Section II of this chapter. Place the durable or heavy items on the bottom and the lighter or more fragile items

on the middle or top layers. Use cellulose wadding, felt, or honeycomb to cushion the rigged items. Use honeycomb to level and square the load before closing the container.

CAUTION: WHEN A CONTAINER IS RIGGED FOR DELIVERY FROM AIR FORCE AIRCRAFT, THE RIGGED WEIGHT DIVIDED BY THE LARGEST SURFACE AREA (MEASURED IN SQUARE FEET) MUST BE A MINIMUM OF 35 POUNDS PER SQUARE FOOT

NOTE: THE RIGGED CONTAINER MUST WEIGH AT LEAST 250 POUNDS BUT NO MORE THAN 600 POUNDS.



- ① Place the items to be airdropped on the load base as shown in Section II of this chapter.

NOTE: ONLY ITEMS WHICH HAVE BEEN TESTED AND APPROVED FOR HIGH-VELOCITY OR HSSLADS AIRDROP MAY BE LOADED IN THIS CONTAINER.

- ② Square the load using the necessary honeycomb pieces.
- ③ Place a 3/4-inch piece of plywood, cut to fit, on each side of the load.
- ④ Tie the plywood in place with type III nylon cord.

Figure 2-4. Load positioned on load base with sideboards in place

2-4. Constructing Container Straps

Make two container straps as shown in Figure 2-5.

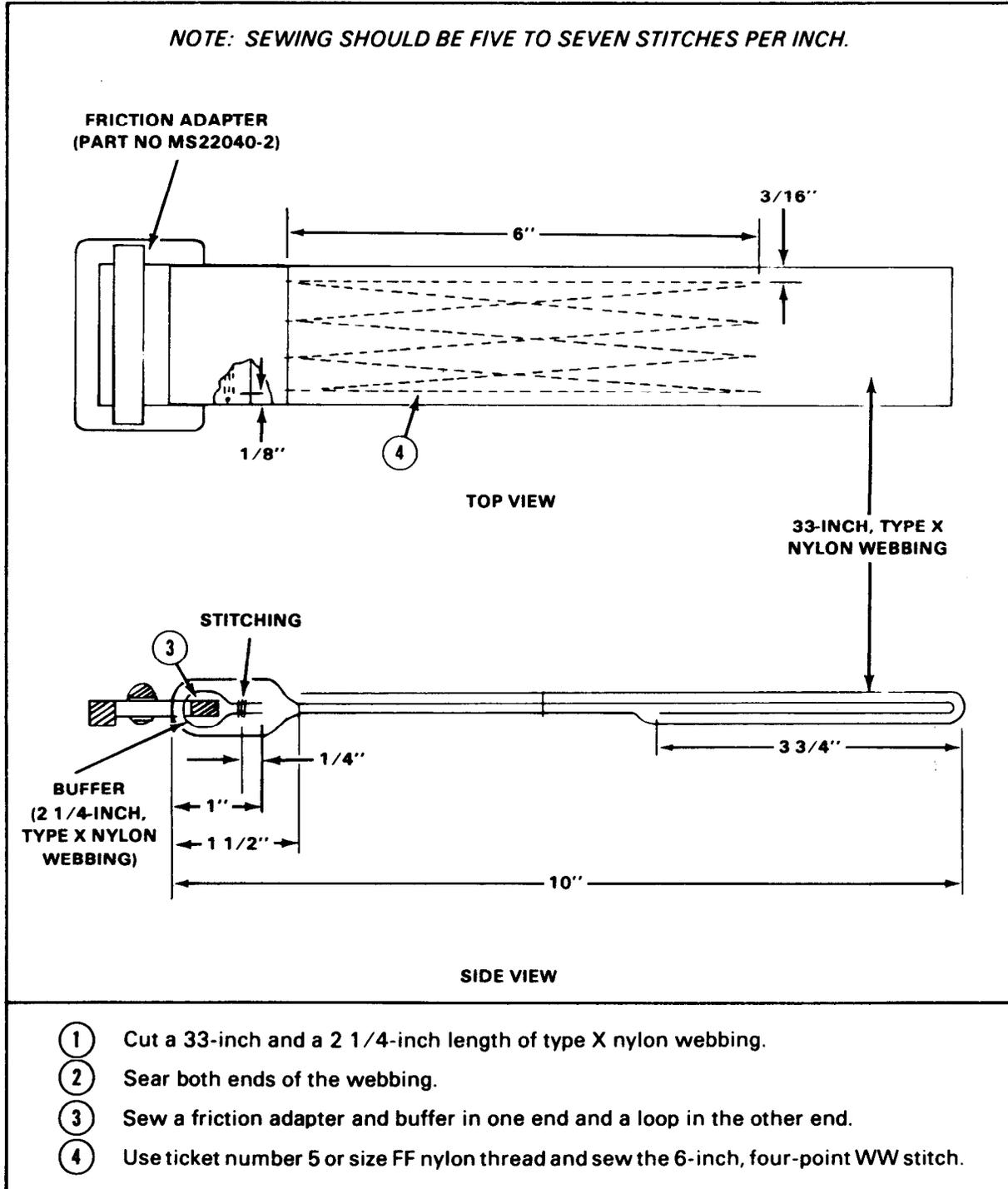


Figure 2-5. HSLADS container strap prepared

2-5. Closing Container and Stowing Parachute

Close the container and secure the skid as shown in Figures 2-6 and 2-7. Attach and restrain a 22-foot cargo extraction parachute to the load as shown in Figures 2-8 and 2-9 and Section III of this chapter. If a 22-foot cargo extraction parachute is not available, use a 28-foot cargo extraction parachute prepared as shown in Section III of this chapter.

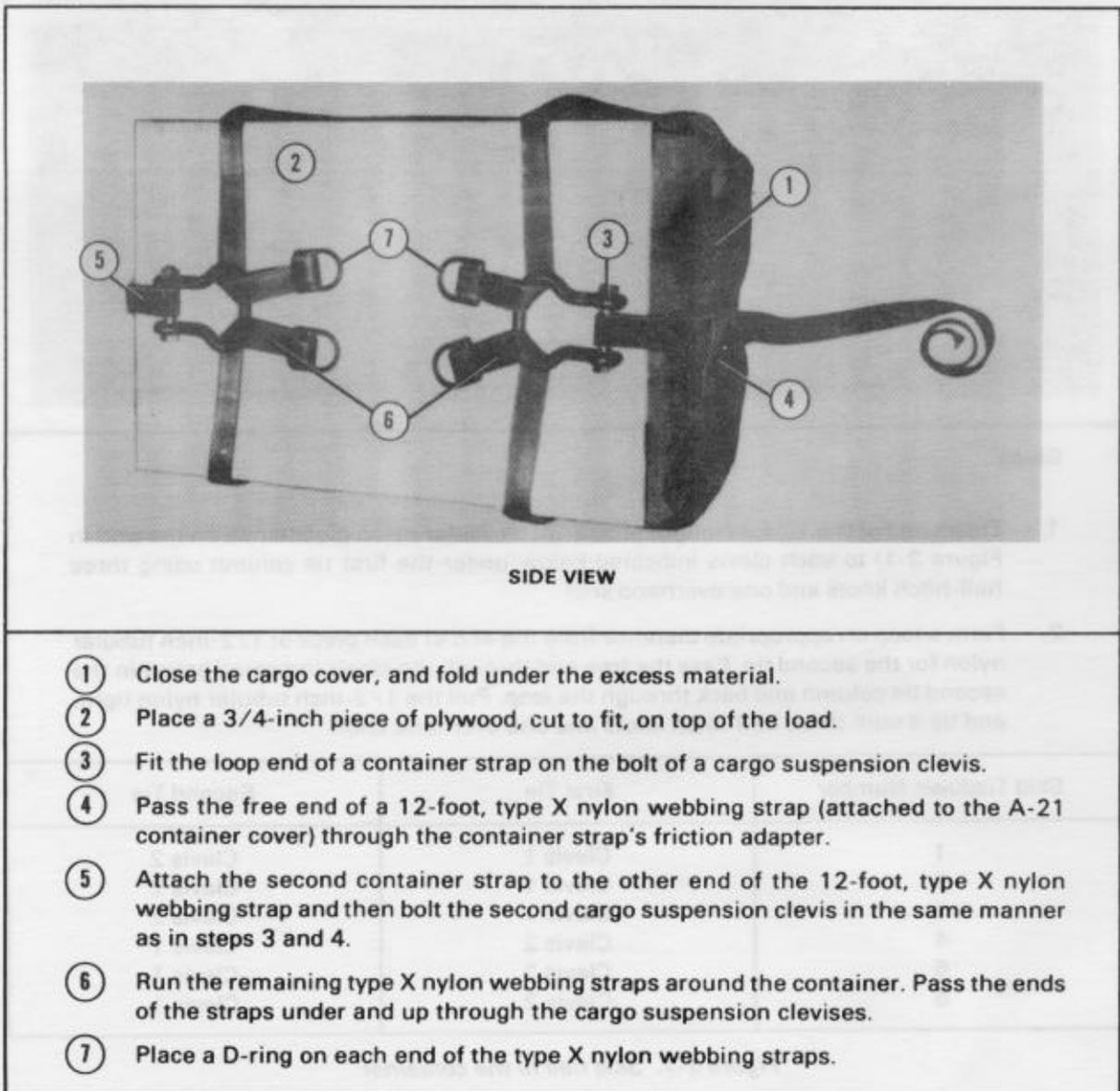
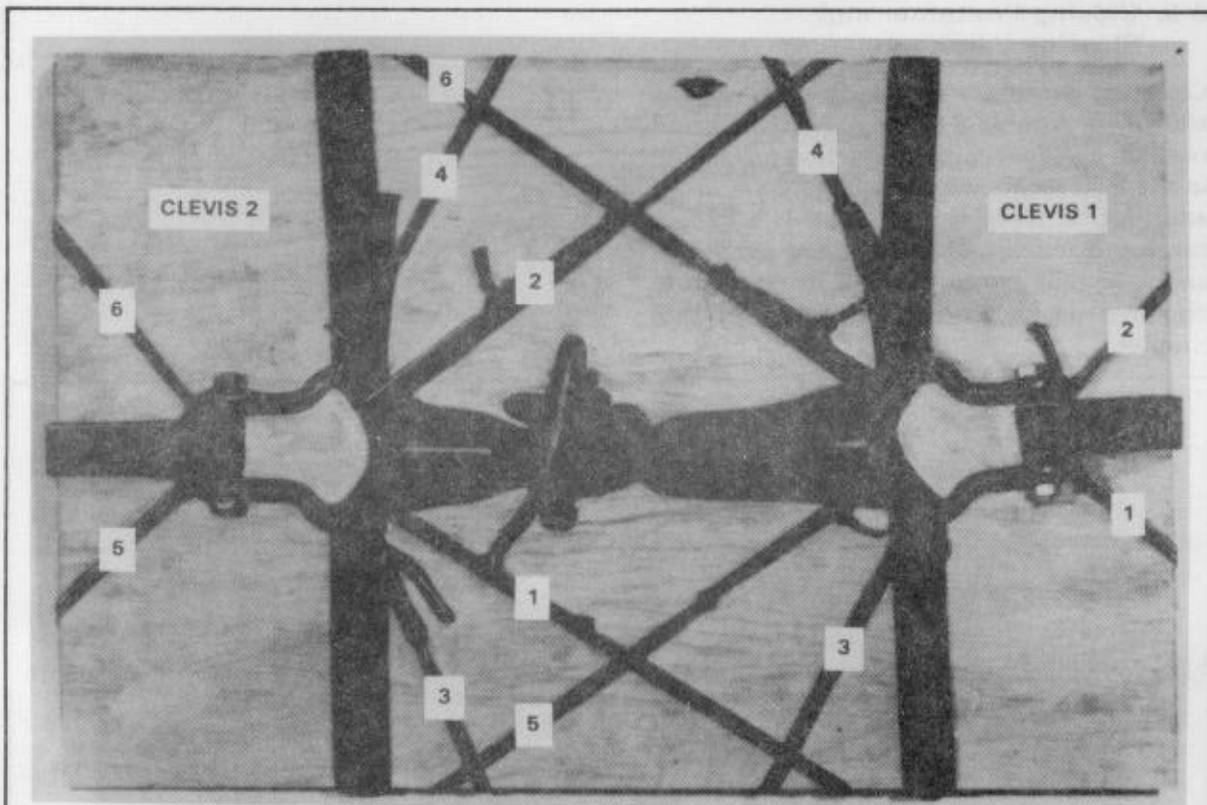


Figure 2-6. HSSLADS container closed



Steps:

1. Tie an end of the 12-foot length of 1/2-inch tubular nylon (positioned on the skid in Figure 2-1) to each clevis indicated below under the first tie column using three half-hitch knots and one overhand knot.
2. Form a loop an appropriate distance from the end of each piece of 1/2-inch tubular nylon for the second tie. Pass the free end through the clevis indicated below in the second tie column and back through the loop. Pull the 1/2-inch tubular nylon tight, and tie it with three half-hitch knots and one overhand knot.

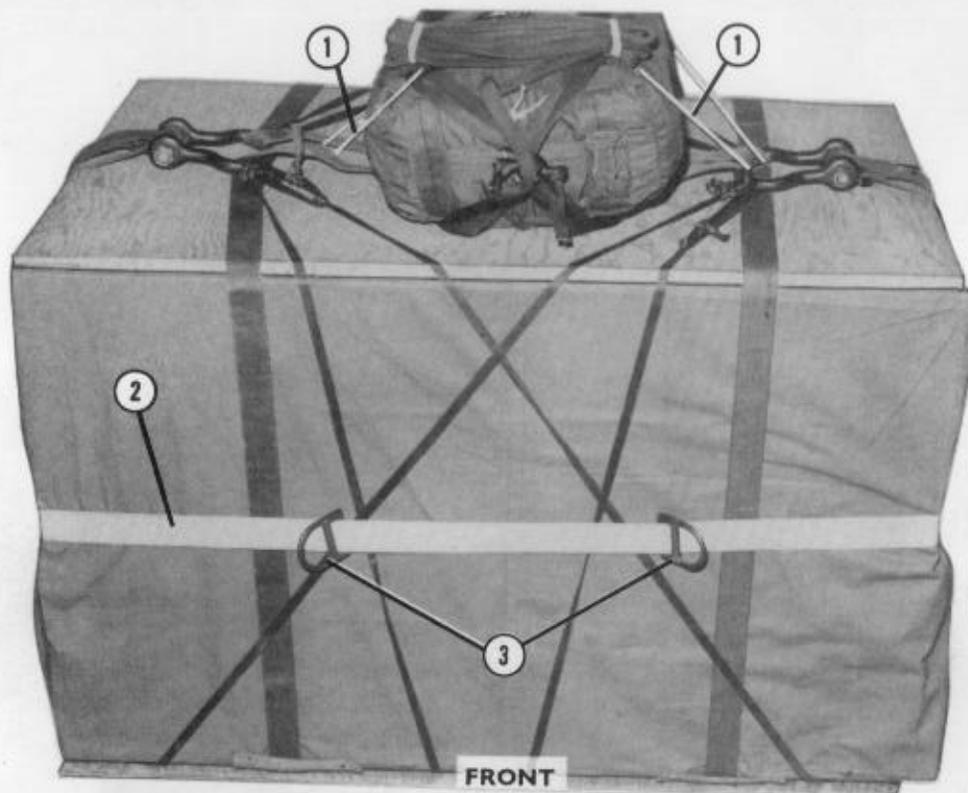
Skid Tiedown Number	First Tie	Second Tie
1	Clevis 1	Clevis 2
2	Clevis 1	Clevis 2
3	Clevis 1	Clevis 2
4	Clevis 2	Clevis 1
5	Clevis 2	Clevis 1
6	Clevis 2	Clevis 1

Figure 2-7. Skid tied to the container



- ① Prepare and pack a 22- or 28-foot cargo extraction parachute according to TM 10-1670-215-23/TO 13C5-1-102/NAVAIR 13-1-16 and Section III of this chapter.
- ② Place the adapter web of the cargo extraction parachute on a cargo suspension clevis.
- ③ Place four D-rings on the bolt of the cargo suspension clevis that has the adapter web attached.
- ④ Tighten all straps. Fold any excess webbing, and tape it or tie it with 80-pound cotton webbing.

Figure 2-8. Parachute prepared



- ① Be sure the parachute is installed so that the static line faces the side of the load which will face forward in the aircraft. Restrain the parachute to the load with a tie of one turn of single, 80-pound cotton webbing from each of the four cluster attaching loops to the straps on the container.
- ② Use a 15-foot tiedown strap or a length of type XXVI nylon webbing with two D-rings attached as a load band around the rigged HSSLADS container at the estimated vertical center of balance.
- ③ Place the two D-rings on the front of the load. Secure the tiedown strap with a D-ring and a load binder.

CAUTION: THE LOAD BAND MUST BE AS TIGHT AS POSSIBLE TO PREVENT IT FROM STRETCHING WHEN IT IS ATTACHED TO THE RELEASE SYSTEM.

Figure 2-9. Parachute restrained and load band installed

2-6. Equipment Required

The equipment needed to prepare and rig the HSSLADS container is listed in Table 2-1.

Table 2-1. Equipment required for rigging a HSSLADS container

National Stock Number	Item	Quantity
4030-00-678-8562	Clevis assembly, suspension, cargo	3
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-360-0321	Cover, canvas, type A-21 bag	1
8135-00-664-6958	Cushioning material, packaging, cellulose wadding	As required
5365-00-937-0147	D-ring, 10,000-lb	6
8305-00-958-3685	Felt, 1/2-in	As required
1670-00-753-3928	Pad, energy-dissipating, honeycomb	As required
1670-00-687-5458	Parachute, cargo extraction, 22-ft or	1
1670-00-262-1797	Parachute, cargo extraction, 28-ft, with deployment bag number 66J1713	1
5530-00-128-4981	Plywood, 3/4-in	As required
1670-00-611-4347	Static line, cargo parachute (for G-13 or G-14)	1
No NSN	Strap, container assembly (fabricated locally)	2
1670-00-937-0271	*Tiedown assembly, 10,000-lb	1
	Webbing:	
8305-00-268-2411	Cotton, 80-lb	As required
8305-00-268-2453	Nylon, tubular, 1/2-in	As required
8305-00-268-2455	Nylon, tubular, 1-in	As required
8305-00-263-3591	Nylon, type VIII	As required
8305-00-261-8584	Nylon, type X	12 yd
*When this item is not available, the following items are required:		
1670-00-937-0272	Binder, load, 10,000-lb	1
1670-00-937-0147	D-ring	2
8305-00-177-5069	Webbing, nylon, type XXVI	15 ft

Section II

RIGGING TYPICAL LOADS FOR HSSLADS CONTAINERS

2-7. Description

The items loaded in the HSSLADS containers described in this section are typical. There is no specific requirement for either the items or the quantities of an item to be airdropped in any one container. Only items which have been tested and approved for high-velocity or HSSLADS airdrop may be airdropped.

NOTE: THE RIGGED CONTAINER MUST WEIGH AT LEAST 250 POUNDS BUT NO MORE THAN 600 POUNDS.

2-8. Rigging the Loads

Close and rig the container according to the procedures described in Section I. Place the

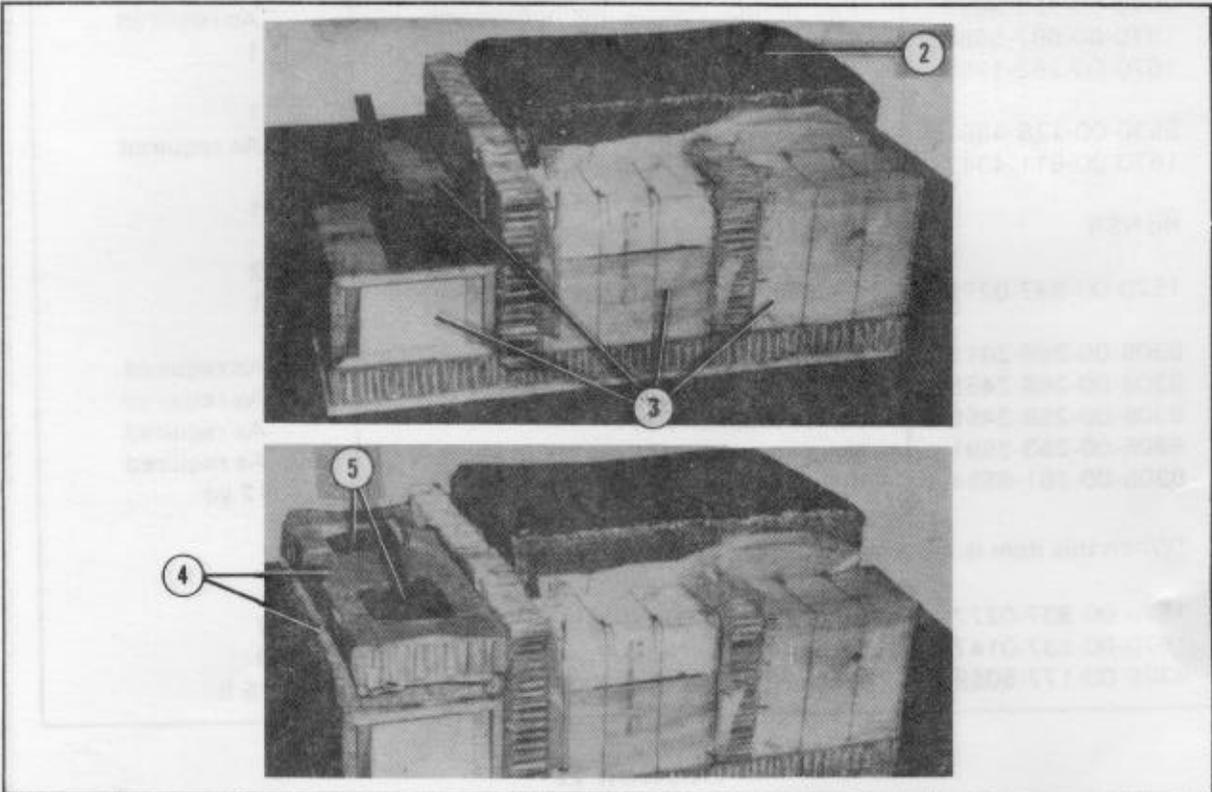
durable or heavy items on the bottom of the load and the lighter or more fragile items on the middle or top layers.

NOTE: ALL LOADS ARE SHOWN FROM THE A-21 CARGO COVER AND UP. THE SKID AND ONE LAYER OF HONEYCOMB ARE UNDER THE A-21 CARGO COVER. THESE LOADS ARE SAMPLES ONLY.

2-9. Rigging Load 1

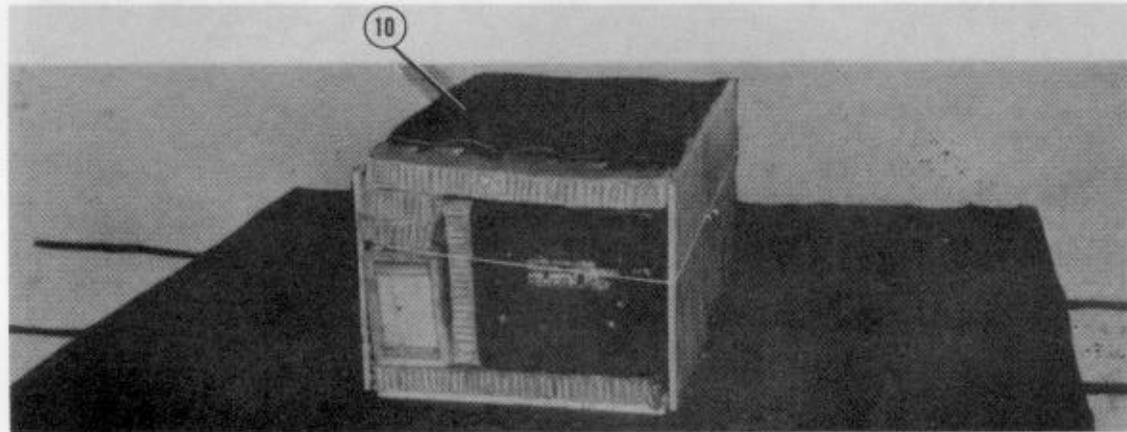
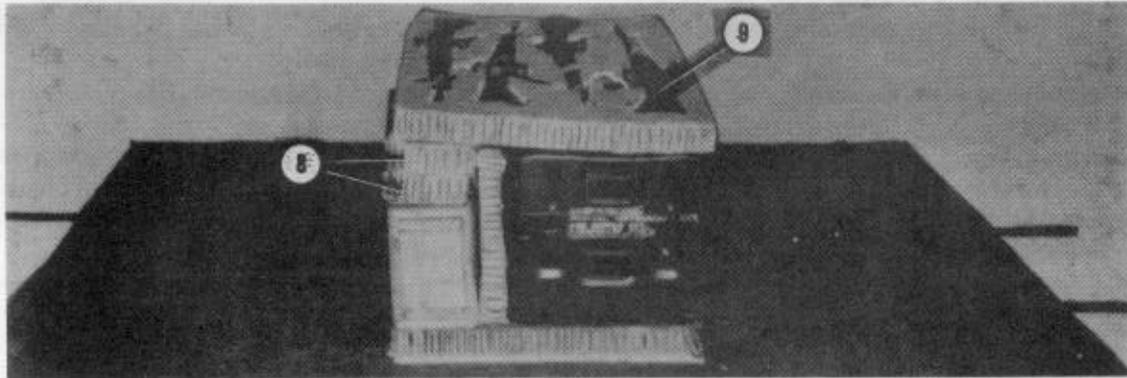
Load 1 items are placed on the load base as shown in Figure 2-10. The following supplies are rigged in load 1:

- Twelve M16 rifles with bayonets and scabbards.
- Four cases of 5.56-millimeter ammunition.
- One field surgical instrument supply set.
- Two individual surgical supply sets.
- Two binoculars in cases.



- ① Open the field surgical instrument supply set, and place cellulose wadding as necessary to prevent movement of set components (not shown).
- ② Close the field surgical instrument supply set, and place it on the load base as shown.
- ③ Place four cases of 5.56-millimeter ammunition on the load base as shown.
- ④ Place two pieces of honeycomb, cut to fit, on top of the ammunition cases.
- ⑤ Make two cutouts in the top piece of honeycomb for the binoculars. Place one pair of binoculars in each cutout.

Figure 2-10. Load 1 items placed



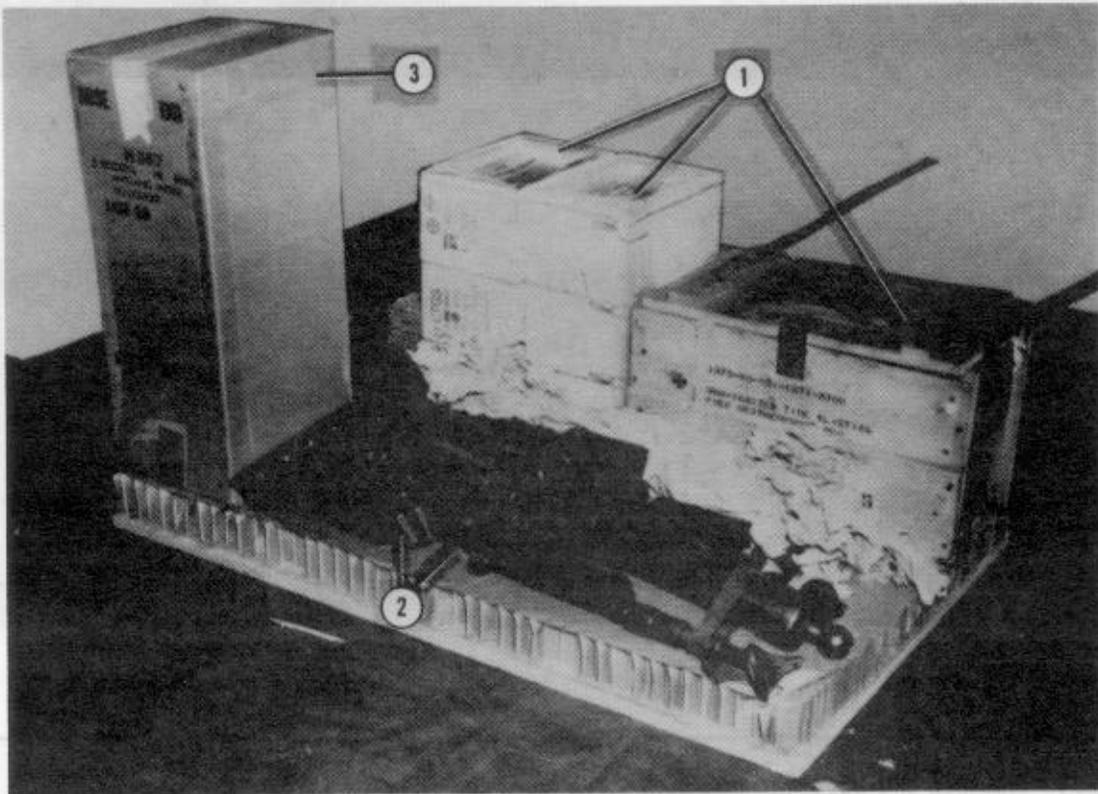
- ⑥ Remove the bayonets and scabbards from the M16 rifles. Pad the bayonets and scabbards with cellulose wadding, and place them on the load (not shown).
- ⑦ Place two individual surgical supply sets on the binoculars (not shown).
- ⑧ Level the top of the load using the necessary honeycomb pieces.
- ⑨ Recess four M16 rifles in a 30- by 48-inch piece of honeycomb, and place it on top of the load.
- ⑩ Place a piece of 1/2-inch felt on top of the rifles.
- ⑪ Perform steps 9 and 10 again for eight additional M16 rifles using two additional pieces of honeycomb (not shown).

Figure 2-10. Load 1 items placed (continued)

2-10. Rigging Load 2

Load 2 items are placed on the load base and prepared for rigging as shown in Figures 2-11 and 2-12. The following supplies are rigged in load 2:

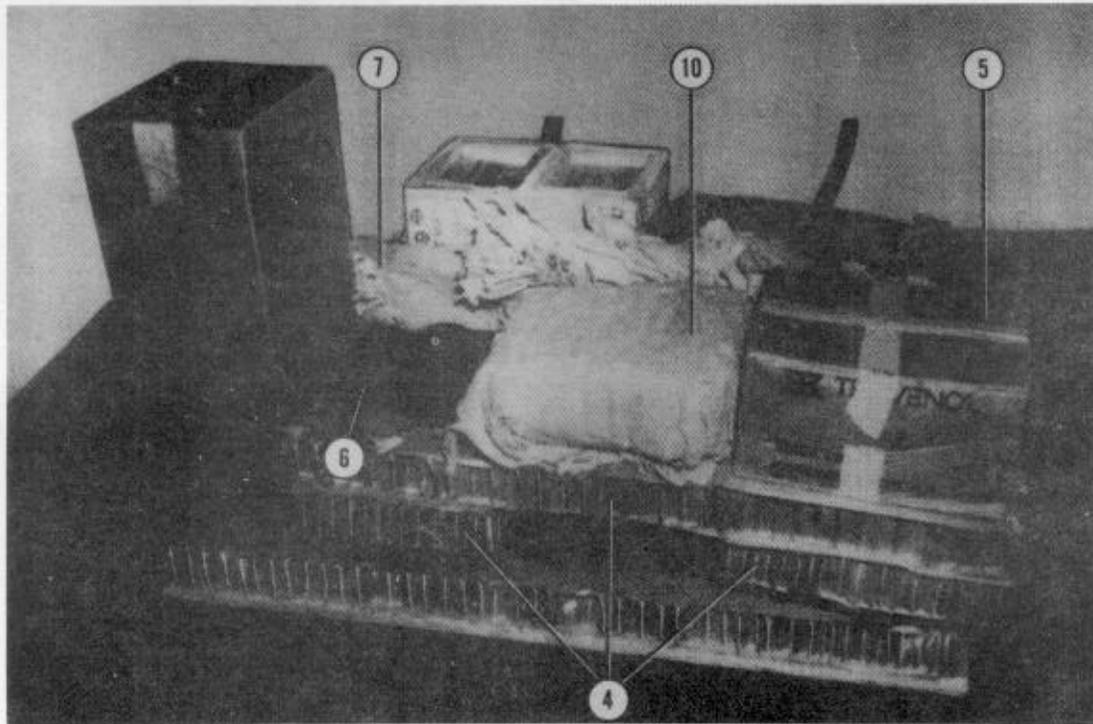
- One case of fuse igniters.
- Two cases of 7.62-millimeter linked ammunition.
- Two boxes of 7.62-millimeter linked ammunition.
- One box of LAW missiles.
- Four compasses.
- One complete 60-millimeter mortar.
- Two 45-caliber pistols with holsters and three loaded clips.
- One box of Ringer's solution.
- Two binoculars in cases.
- One AN/PRC-77 radio with accessories.
- One M60 machine gun with extra barrel.
- Sixty 60-millimeter, high-explosive mortar rounds.



- ① Place one case of fuse igniters and all of the 7.62-millimeter linked ammunition on the load base as shown.
- ② Place the complete 60-millimeter mortar on the load base as shown.
- ③ Place the boxed LAW missiles on the load base with the nose end up.

CAUTION THE LAW MISSILES MUST ALWAYS BE PLACED NOSE UP FOR AIRDROP

Figure 2-11. Load 2 items placed



- ④ Level the top of the 60-millimeter mortar with the necessary honeycomb pieces.
- ⑤ Place the box of Ringer's solution on the honeycomb as shown.
- ⑥ Place the binoculars (in cases) and the compasses on top of the honeycomb as shown.
- ⑦ Pad the M60 machine gun and extra barrel with cellulose wadding, and place them on the load as shown.
- ⑧ Box sixty 60-millimeter, high-explosive mortar rounds, and place them on the load (not shown).
- ⑨ Fit the 45-caliber pistols with holsters and clips on the load (not shown).
- ⑩ Pad an AN/PRC-77 radio and accessories with cellulose wadding, and place them on the honeycomb as shown.

Figure 2-11. Load 2 items placed (continued)

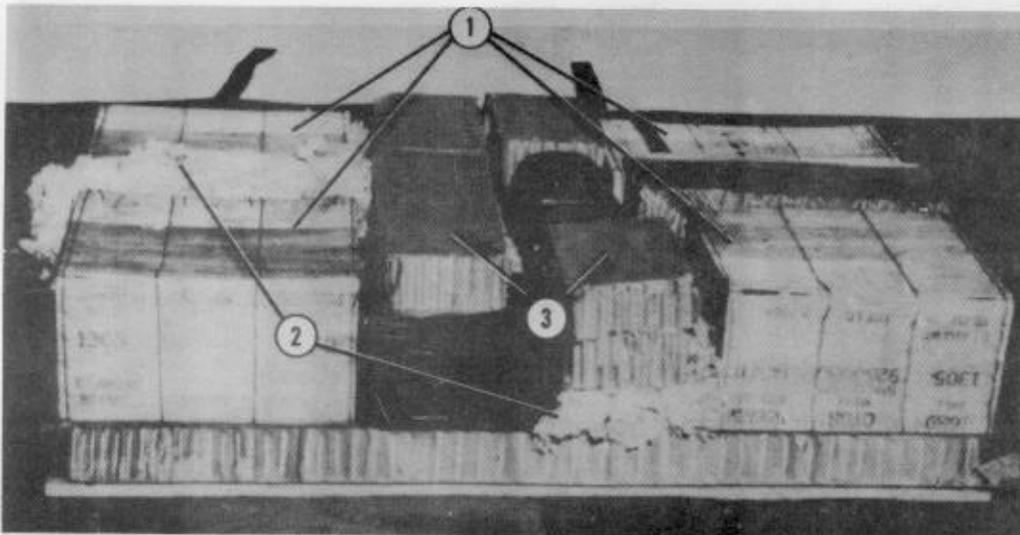


Figure 2-12. Load 2 prepared for rigging

2-11. Rigging Load 3

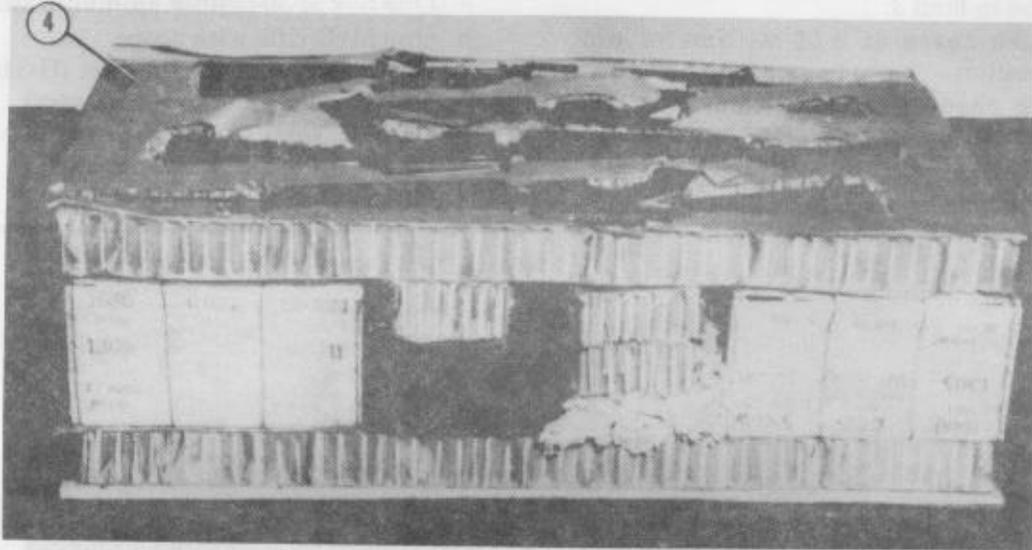
Load 3 items are placed on the load base as shown in Figure 2-13. The following supplies are rigged in load 3:

- Three cases of 5.56-millimeter ammunition.
- One case of 7.62-millimeter linked ammunition.
- Three power supplies (PP-2685/GRC-109).
- Ten M16 rifles with bayonets and scabbards.
- One box of 30-caliber ammunition.
- One M1D rifle with scope.
- One direct current generator (G-34/G).
- Two hand cranks (for generator).
- Three AN/GRC-109 radios.
- One AN/GRC-109 generator.
- One IV injection set.



- ① Place three cases of 5.56-millimeter ammunition, one case of 7.62-millimeter linked ammunition, one box of 30-caliber ammunition, and the power supplies on the load base as shown.
- ② Pad the small items with cellulose wadding, and fit them into the load.
- ③ Level and square the load with pieces of honeycomb.

Figure 2-13. Load 3 items placed



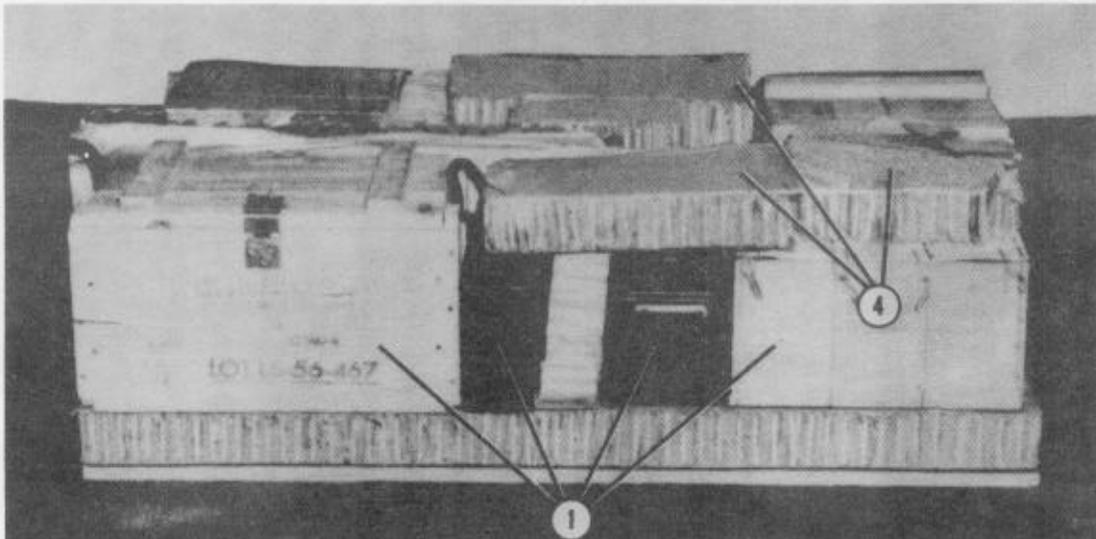
- ④ Recess four M16 rifles in a 30- by 48-inch piece of honeycomb, and place it on the load.
- ⑤ Place a layer of 1/2-inch felt on top of the rifles (not shown).
- ⑥ Place an additional piece of honeycomb with four rifles on the load as in step 4 above (not shown).
- ⑦ Recess two M16 rifles, one M1D rifle, and one AN/GRC-109 generator in a 30- by 48-inch piece of honeycomb, and place it on the load (not shown).
- ⑧ Place a piece of 1/2-inch felt on top of the rifles and generator (not shown).
- ⑨ Place an additional 30- by 48-inch piece of honeycomb on top of the load (not shown).

Figure 2-13. Load 3 items placed (continued)

2-12. Rigging Load 4

Load 4 items are placed on the load base as shown in Figure 2-14. The following supplies are rigged in load 4:

- One case of M67 fragmenting hand grenades.
- Three cases of 5.56-millimeter ammunition.
- Three claymore mines.
- One M203 40-millimeter launcher.
- Thirty 40-millimeter ammunition rounds.
- Eight M16 rifles with bayonets and scabbards.
- One M1D rifle with scope.
- 150 30-caliber ammunition rounds.
- Two individual surgical supply sets.



- ① Place the 40-millimeter ammunition rounds, 5.56-millimeter ammunition, claymore mines, hand grenades, and 30-caliber ammunition on the load base as shown.
- ② Remove the bayonets and scabbards from the M16 rifles. Pad the bayonets and scabbards with cellulose wadding, and fit them into the load.
- ③ Fit the individual surgical supply sets into the load.
- ④ Level and square the load with pieces of honeycomb.

Figure 2-14. Load 4 items placed

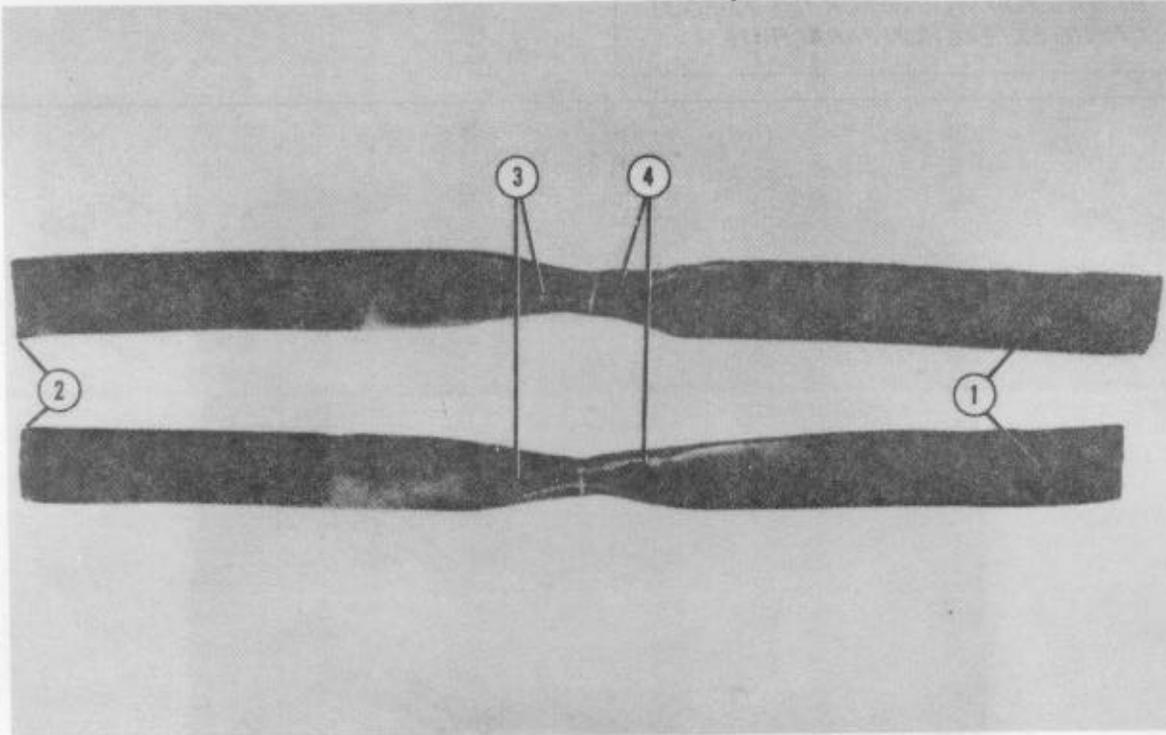
NOTE: IF THE 28-FOOT CARGO EXTRACTION PARACHUTE IS TO BE USED, THE DEPLOYMENT BAG, PART NUMBER 66J1713, MUST BE USED. PREPARE THE BAG AS YOU WOULD FOR THE 22-FOOT CARGO EXTRACTION PARACHUTE.



- ① Cut the V-rings off the deployment bag.
- ② Cut the safety cords off the bag.
- ③ Cut the deployment bag bridle loop strap from the bag.

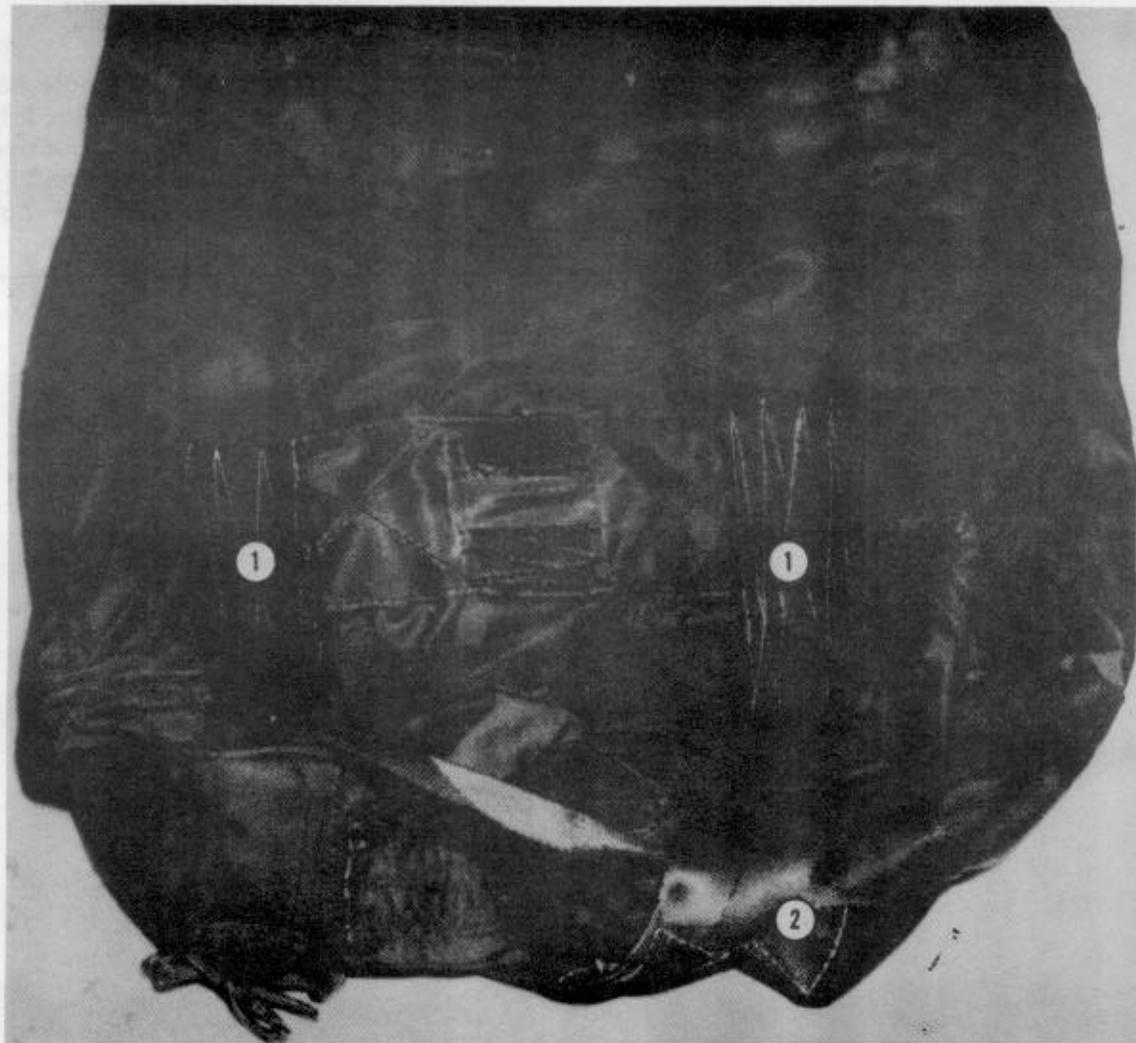
NOTE: DO NOT REMOVE THE SLOT REINFORCEMENT.

Figure 2-15. Deployment bag modification



- ① Cut two 24-inch lengths of treated, type VIII nylon webbing.
- ② Sear the cut ends.
- ③ Form a 4-inch roll in the center of each strap.
- ④ Stitch around the roll and across the center of the roll with ticket number 3 or size FF nylon thread.

Figure 2-16. Bridle straps formed

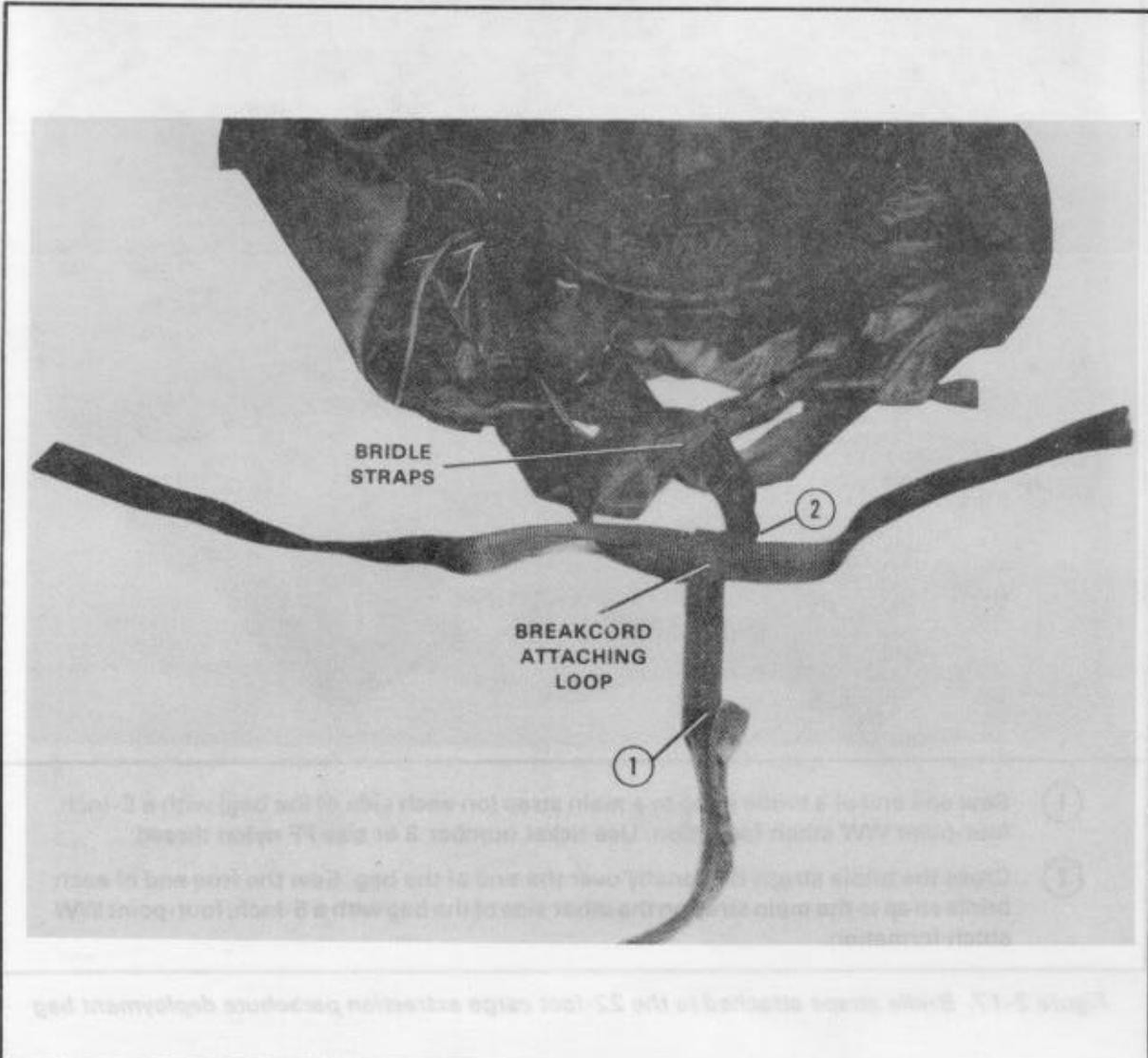


- ① Sew one end of a bridle strap to a main strap (on each side of the bag) with a 5-inch, four-point WW stitch formation. Use ticket number 3 or size FF nylon thread.
- ② Cross the bridle straps diagonally over the end of the bag. Sew the free end of each bridle strap to the main strap on the other side of the bag with a 5-inch, four-point WW stitch formation.

Figure 2-17. Bridle straps attached to the 22-foot cargo extraction parachute deployment bag

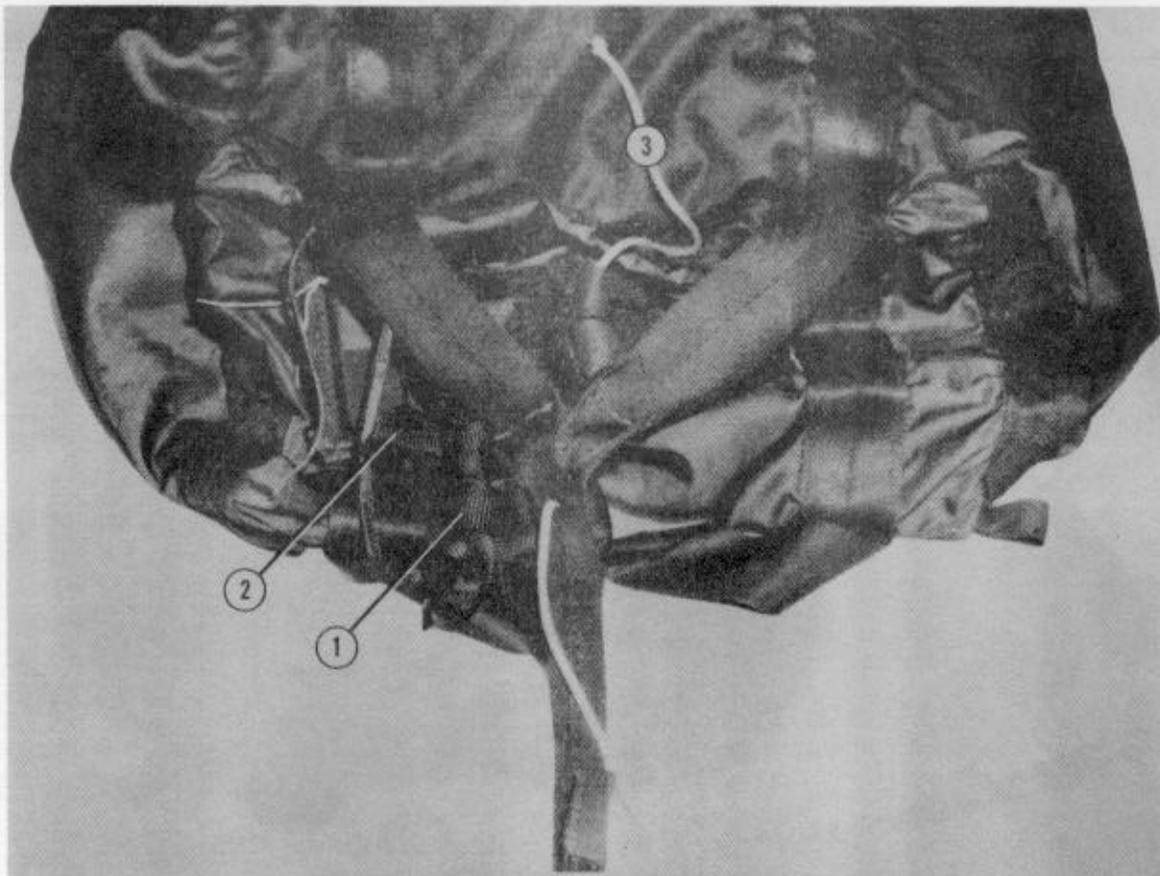
2-14. Attaching Static Line and Bridle Loop Breakcord

Use the G-13 or G-14 cargo parachute static line. Attach the static line to the bag bridle straps with a length of 1-inch tubular nylon webbing as shown in Figures 2-18 and 2-19. Make the bridle loop breakcord tie as shown in Figures 2-19 and 2-20.



- ① Use the G-13 or G-14 cargo parachute static line.
- ② Pass a length of 1-inch tubular nylon webbing through the static line breakcord attaching loop and around the crossed bridle straps to make a two-ply tie.

Figure 2-18. Static line positioned



- ① Secure the 1-inch tubular nylon webbing with a surgeon's knot, a locking knot, and an overhand knot in the running ends.
- ② Cut the 1-inch tubular nylon webbing 1 inch from the overhand knots.
- ③ Pass a length of coreless type III nylon cord through the parachute bridle loop and through the static line breakcord attaching loop.

Figure 2-19. Static line attached and bridle loop breakcord placed

2-15. Stowing Suspension Lines

Use ticket number 5 or 8/7 cotton thread instead of retainer bands to stow the suspension lines. Attach the thread to the suspension line retaining straps by making a loop around the straps. Place the suspension line stow between both ends of a length of ticket number 5 or 8/7 cotton thread. Secure the ends with a surgeon's knot and a locking knot. Cut the thread ends to 1 inch after making the ties.

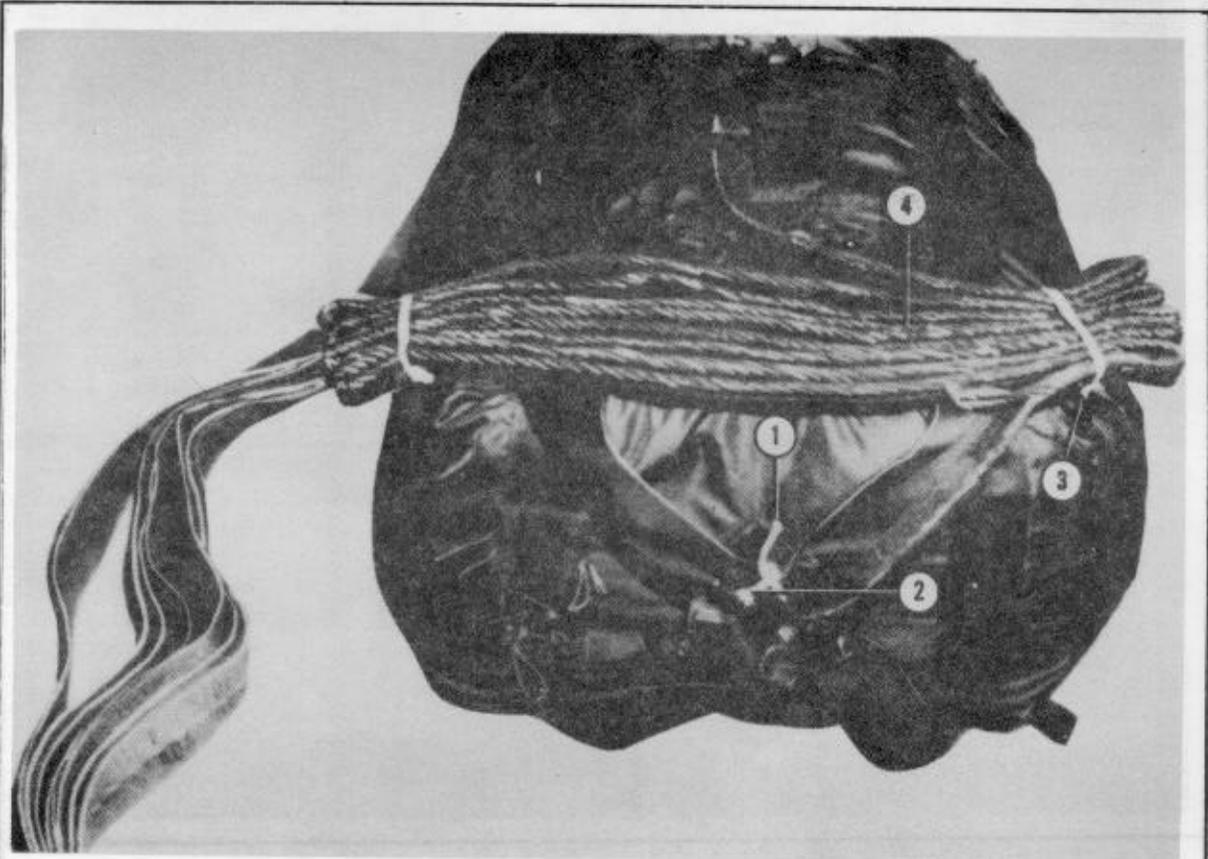
2-16. Packing Parachute

Pack the cargo extraction parachute according to procedures in TM 10-1670-215-23/TO 13C5-1-102/NAVAIR 13-1-16 and this section.

NOTE: MAKE THE BAG CLOSING TIE WITH ONE TURN OF SINGLE, 80-POUND COTTON WEBBING.

2-17. Stowing Static Line

Stow the static line as shown in Figure 2-20.



- ① Tie the coreless type III nylon cord with a surgeon's knot, a locking knot, and an overhand knot in each running end.
- ② Cut the nylon cord 1 inch from the overhand knots.
- ③ Attach a retainer band to each of the two cluster attaching loops nearest the static line.
- ④ S-fold the static line, and secure it with the installed retainer bands.

Figure 2-20. Breakcord tie made and static line stowed

NOTE: MAKE THE BAG CLOSING TIE WITH ONE TURN OF SINGLE NO. 10 COTTON WEAVING