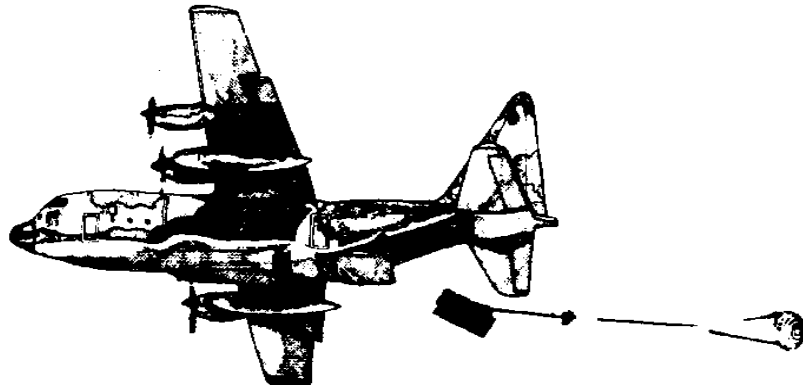
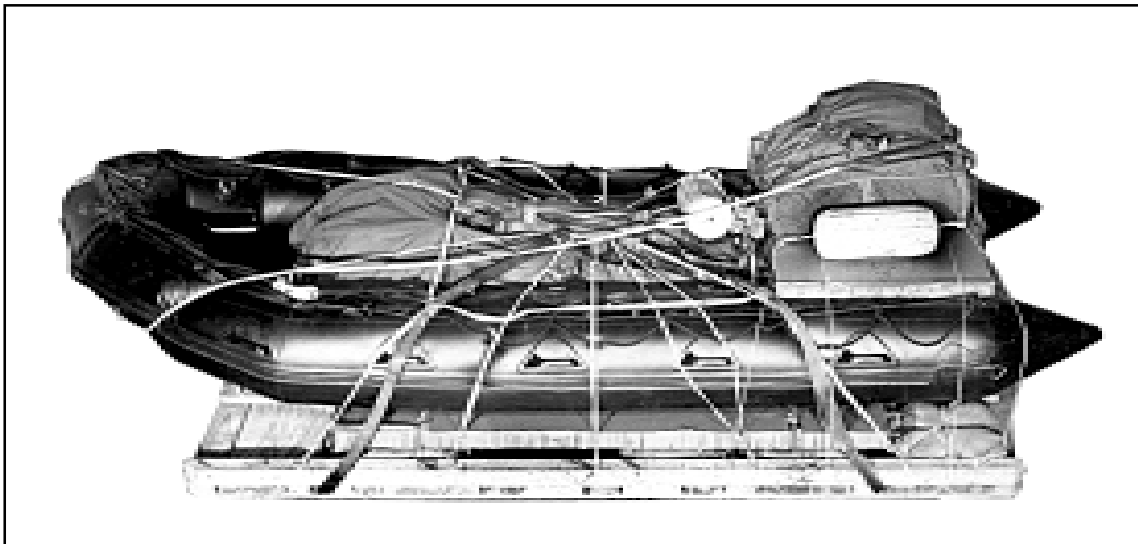


**ARMY FM 10-542  
NAVY NAVSEA SS400-AD-MMO-010  
AIR FORCE TO 13C7-51-21**



AIRDROP OF SUPPLIES AND EQUIPMENT:  
**RIGGING LOADS  
FOR SPECIAL OPERATIONS**



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**AIRDROP OF SUPPLIES AND EQUIPMENT:  
RIGGING LOADS FOR SPECIAL OPERATIONS**

This change adds the procedures for rigging the Navy Special Warfare Rigid Inflatable Boat for low-velocity airdrop. This change also modifies the procedures for rigging the F470U boat in the A-22 cargo bag for low-velocity airdrop.

FM 10-542/TO 13C7-51-21, 07 October 1987, is changed as follows:

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3-129 through 3-134  
  
Glossary-1  
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**AIRDROP OF SUPPLIES AND EQUIPMENT:  
 RIGGING LOADS FOR SPECIAL OPERATIONS**

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## PREFACE

### SCOPE

This manual tells and shows how to rig the following airdrop loads for special operations:

*a.* Four different HSSLADS containers or loads rigged for airdrop from the MC-130 aircraft.

*b.* Six different inflated rubber raiding crafts rigged on SOCEPS for low-velocity airdrop from C-130, C-141, C-17 or C-5 aircraft. In addition, a rubber raiding craft and a small inflatable boat are rigged as airdrop bundles.

*c.* The Mobile Over Snow Transport (MOST) for low-velocity airdrop on the type V airdrop platform from C-130, C-141, C-5, or C-17 aircraft.

*d.* The Naval Special Warfare Rigid Inflatable Boat (NSW RIB) is rigged for low-velocity airdrop on a specially-designed platform from C-130, C-141, C-5, or C-17 aircraft. .

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## CHAPTER 1

## INTRODUCTION

**1-1. Description of Items**

The descriptions of the items rigged in this manual are given below:

**a. HSSLADS Container.** The HSSLADS container is an adjustable container made of an A-21 cargo cover and other airdrop items. Its size and weight are determined by the load.

**b. Zodiac Mark III Boat.** The inflated Zodiac Mark III boat is 75 inches wide, 18 inches high, and 180 inches long. The boat weighs 240 pounds.

**c. Zodiac Mark III Futura Boat.** The inflated Zodiac Mark III Futura boat is 75 inches wide, 26 inches high, and 185 inches long. The boat weighs 250 pounds.

**d. Z-Bird Boat.** The inflated Z-Bird boat is 75 inches wide, 18 inches high, and 180 inches long. The boat weighs 250 pounds.

**e. Zodiac K40 Boat.** The inflated Zodiac K40 boat is 82 inches wide, 29 inches high, and 159 inches long. The boat weighs 60 pounds.

**f. Zodiac K50 Boat.** The inflated Zodiac K50 boat is 82 inches wide, 29 inches high, and 195 inches long. The boat weighs 80 pounds.

**g. Zodiac F470U Boat.** The inflated Zodiac F470U boat is dropped singly, or in pairs.

Each boat is 75 inches wide, 22 inches high, and 185 inches long. The boat weighs 250 pounds.

**h. Small Inflatable Boat.** The IBS is airdropped partially inflated in a bundle. The uninflated boat is 32 inches wide, 32 inches high, and 38 inches long. The boat weighs 150 pounds.

**i. Mobile Over Snow Transport.** The MOST consists of two snow machines and two sleds.

**j. Naval Special Warfare Rigid Inflatable Boat.** The NSW RIB is 108 inches wide, 100 inches high, 432 inches long. The boat rigged on its platform can weigh a maximum of 20,640 pounds.

**1-2. Special Considerations**

**CAUTION: ONLY AMMUNITION AND SUPPLIES APPROVED FOR HIGH-VELOCITY OR HSSLADS AIRDROP MAY BE AIRDROPPED BY HSSLADS.**

When a dangerous material is being rigged, the container must be marked and labeled according to AFJMAN 24-204/TM 38-250. Only ammunition listed in FM 10-500-53/TO 13C7-18-41 may be airdropped. A copy of this manual must be available to the joint airdrop inspectors during the before- and after-loading inspections.

**a. HSSLADS Container.** The following items apply to the HSSLADS container:

- A multiple drop of four HSSLADS containers may be airdropped on one pass provided the total weight does not exceed 2,200 pounds.
- The type XXVI nylon webbing used to band multiple HSSLADS loads will be furnished by the US Army.
- The HSSLADS containers are airdropped from the MC-130 aircraft only.

NOTE: FOR AIR FORCE USE ONLY. A HSSLADS CONTAINER WEIGHING AT LEAST 250 POUNDS MAY BE AIRDROPPED FOR CONTINUANCE TRAINING PURPOSES ONLY, PROVIDED THE 35 POUNDS PER SQUARE FOOT MINIMUM IS MAINTAINED. FOR UNILATERAL TRAINING LOADS, HONEYCOMB IS NOT REQUIRED.

**b. Boats and Parachutists.** The following items apply to boats and parachutists:

- At no time will the total number of static lines on the anchor line cable for personnel and cargo exceed 20.
- One boat may be airdropped from a C-130 aircraft and followed by parachutists.
- Two boats and two groups of parachutists may be airdropped from a C-130 in a single pass.
- Boats airdropped from C-141 aircraft cannot be followed by parachutists on a static line. Nonstatic line parachutists may follow the load after retrieval of the deployment bags.

- The total rigged weight of rubber raiding craft loads on SOCEPS must be a minimum of 2,100 pounds. Sandbags or other ballast may be added to the platform for this purpose.

**c. Joint Airdrop Inspection Record Checklists.** Joint Airdrop Inspection Record Checklists are provided for local reproduction in Appendix A. Use the checklists for joint airdrop inspections with DD Form 1748-4 as follows:

- Fill in the heading of the DD Form 1748-4.
- Cross out blocks 12 and 13.
- Write in “See Attached Checklist” in block 16 remarks.
- Make three copies of the checklist and attach them to DD Form 1748-4.
- Use the checklist, as required.
- Sign DD Form 1748-4.
- Keep each form DD Form 1748-4 and each checklist together as a complete record.



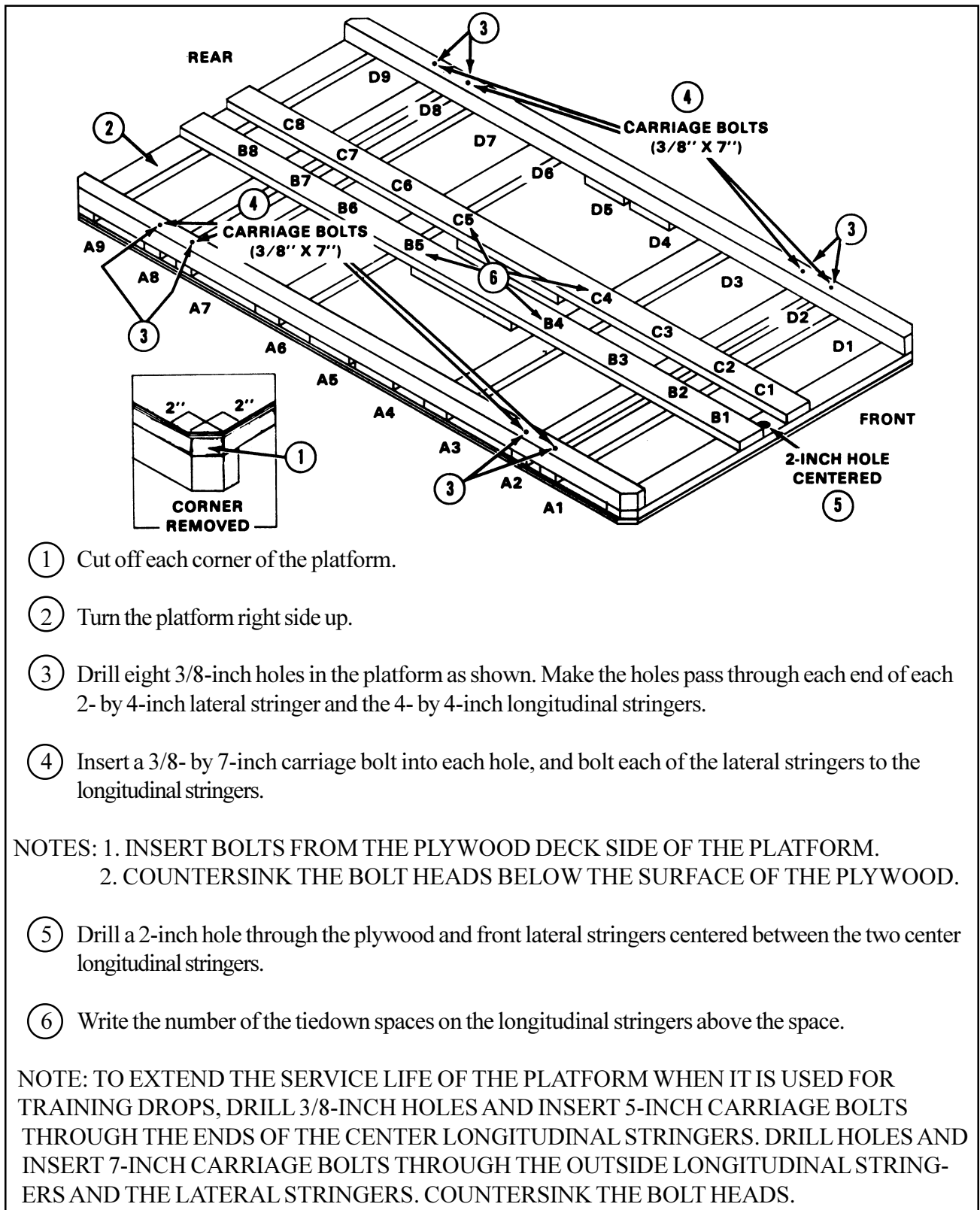


Figure 3-4. Corners cut off, bolts installed, and tiedown spaces numbered

### 3-3. Installing Suspension Slings

Install four 16-foot (2-loop), type XXVI nylon webbing slings as suspension slings on the platform. Use two type IV link assemblies and two link covers to finish installing the suspension slings. Installation is shown in Figure 3-5.

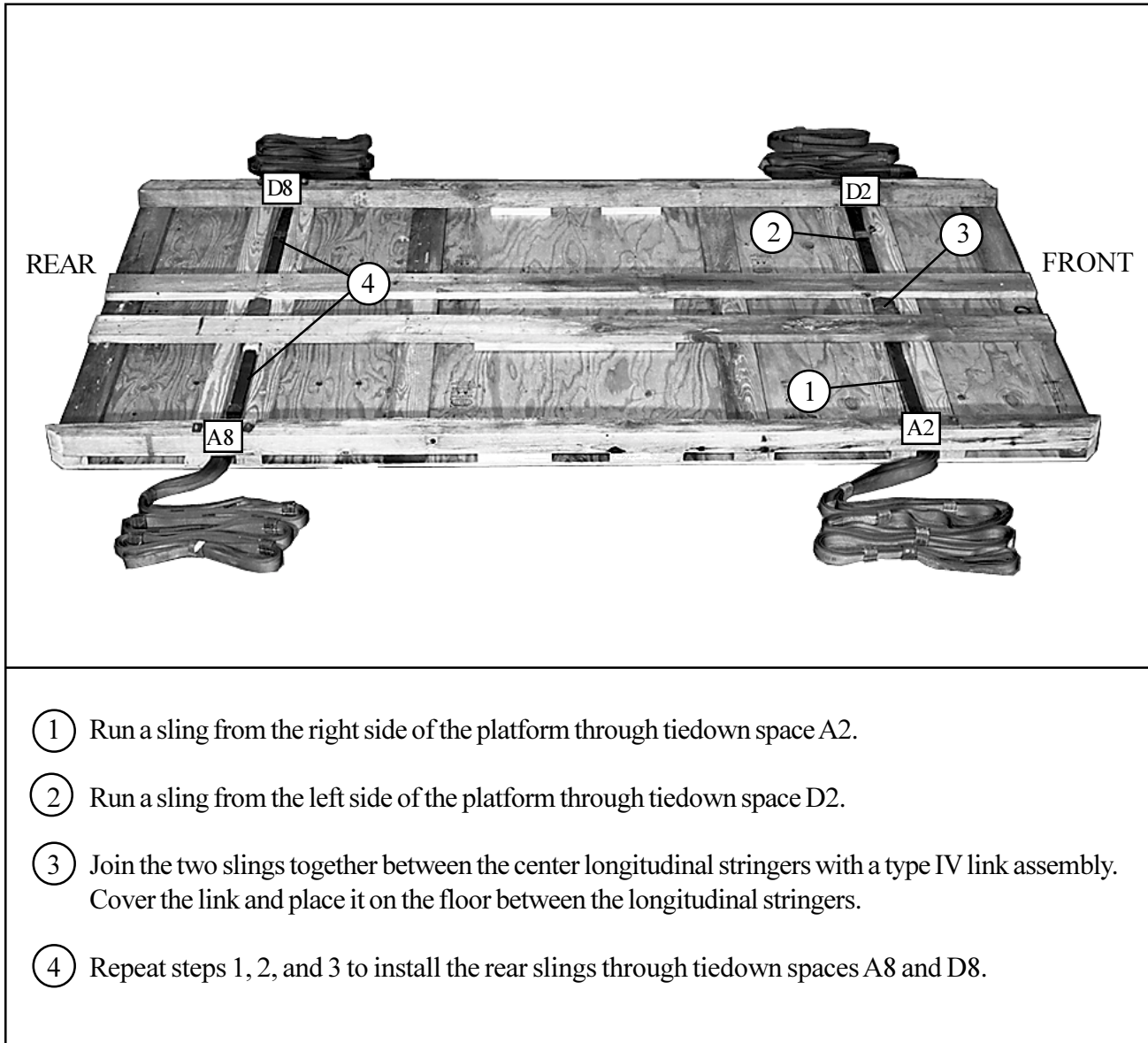
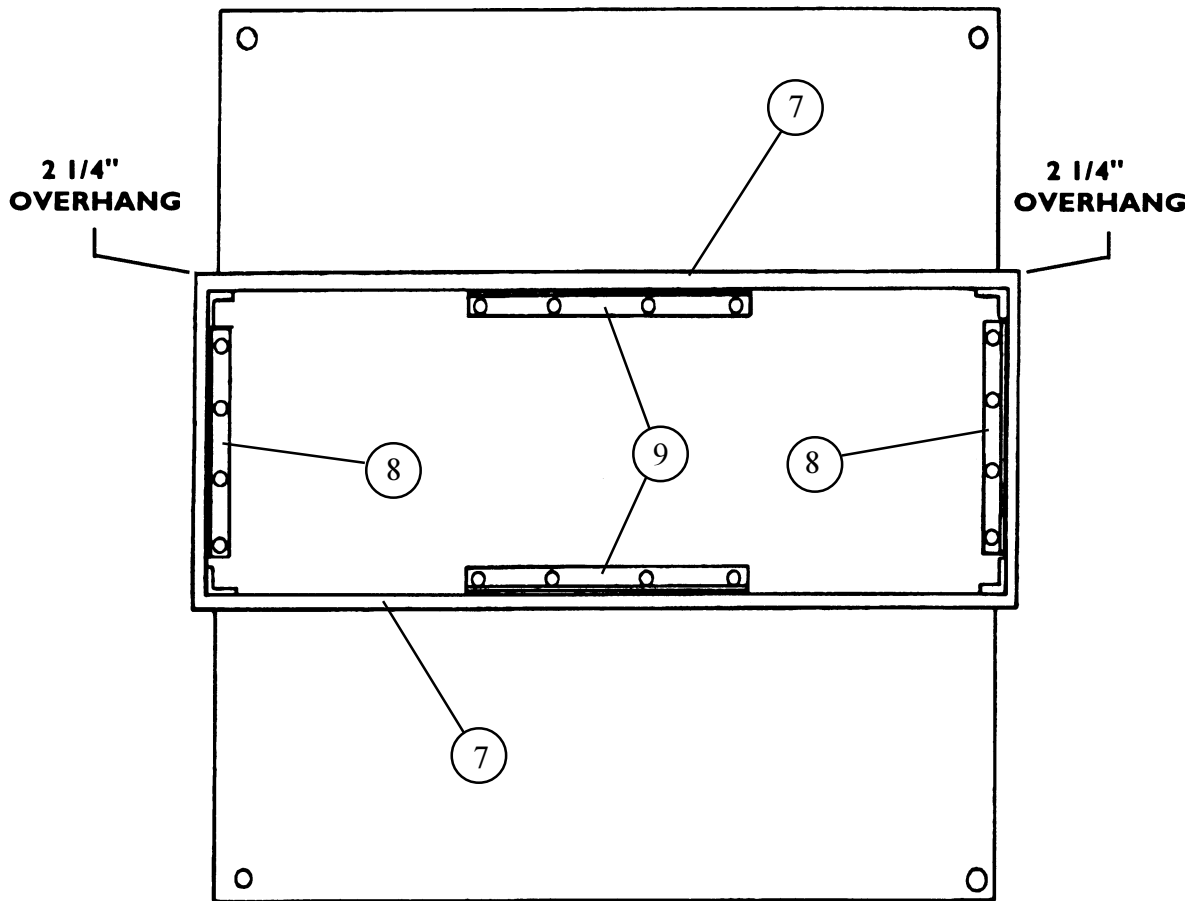


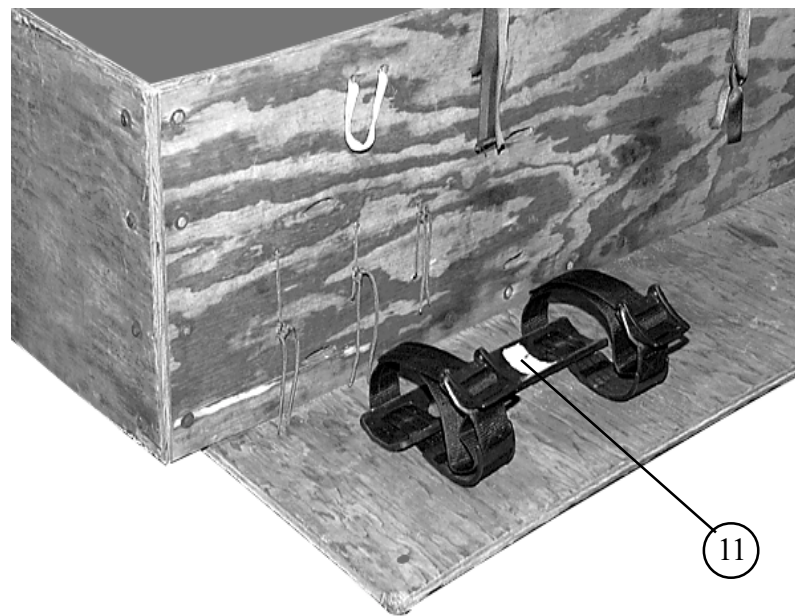
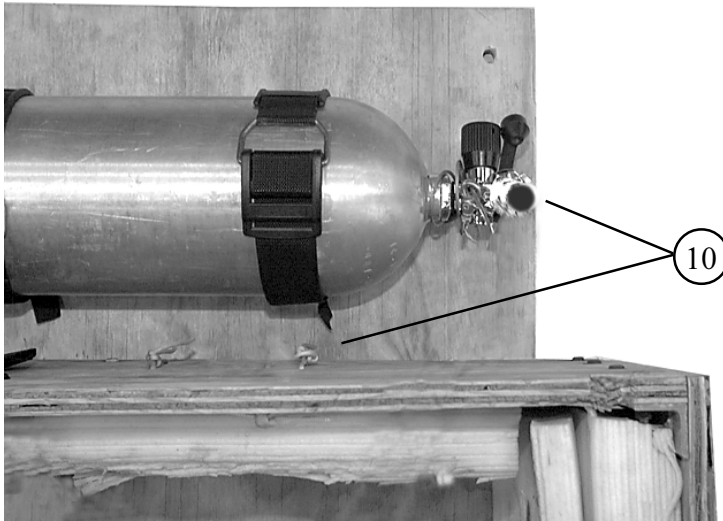
Figure 3-5. Suspension slings installed on platform

NOTE: THIS DRAWING IS NOT TO SCALE.



- ⑦ Center the sides of the box over the bottom so that the ends overhang the bottom 1 1/2 inches at the front and rear.
- ⑧ Join each end of the box to the bottom with a 14-inch length of angled aluminum or Dexion. Drill holes and install fasteners and washers as in step 6. Note that the total overhang at each end for a 51-inch box is 2 1/4 inches.
- ⑨ Join each side of the box to the bottom with a 20-inch length of angled aluminum or Dexion centered along each side. Drill holes and install fasteners and washers as in step 6.

Figure 3-76. Engine protection box constructed (continued)



- 10 Fill a SCUBA cylinder with compressed air at 3000 psig, and position the cylinder in its mounting plate. Place the cylinder on the left side of the box base so that the cylinder is one inch from the box side, and the cylinder valve flush with the front edge of the base.
- 11 Remove the cylinder. Using the mounting plate as a template, drill holes through the box base. Install the mounting plate using the bolts provided.

Figure 3-76. Engine protection box constructed (continued)

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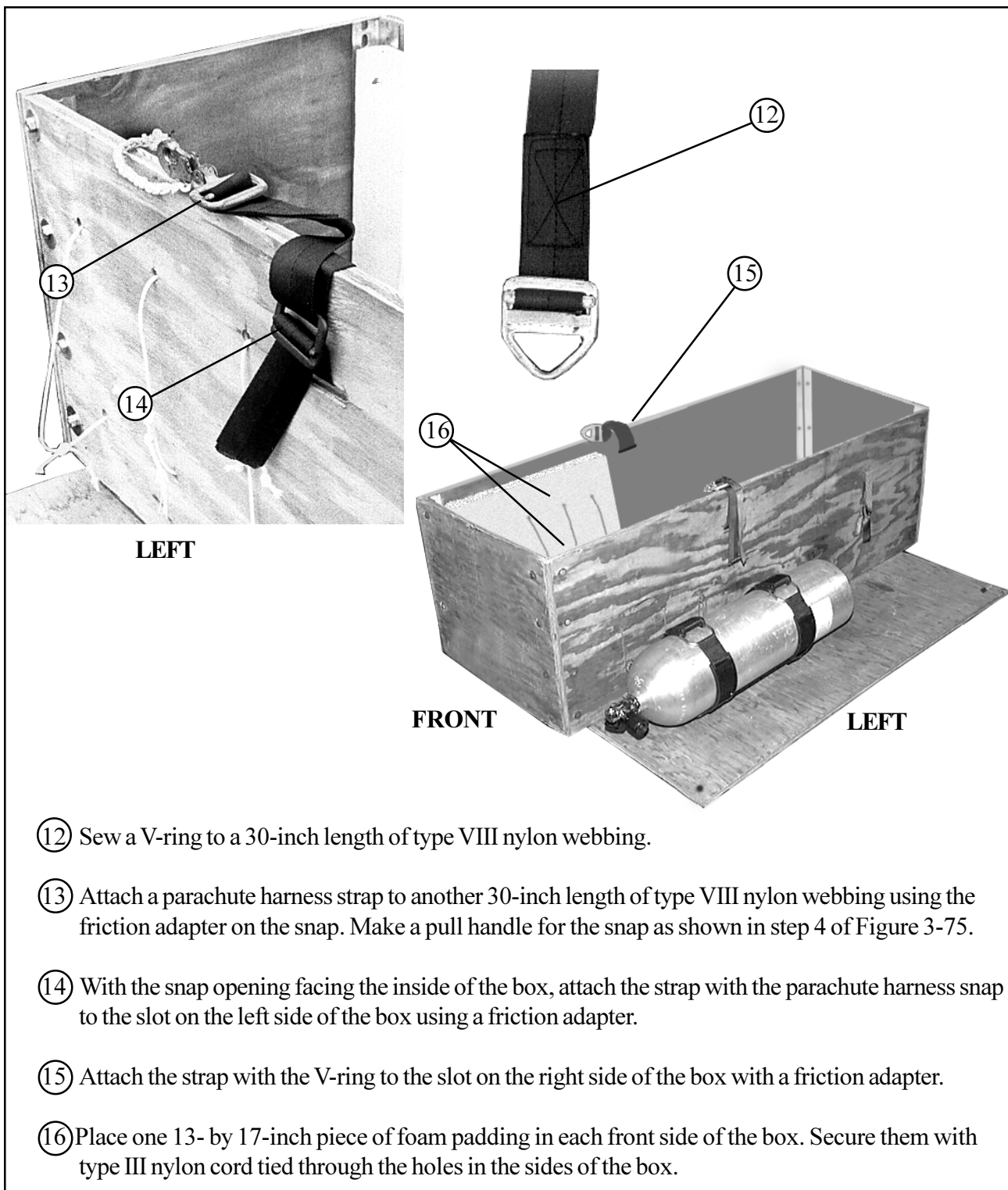
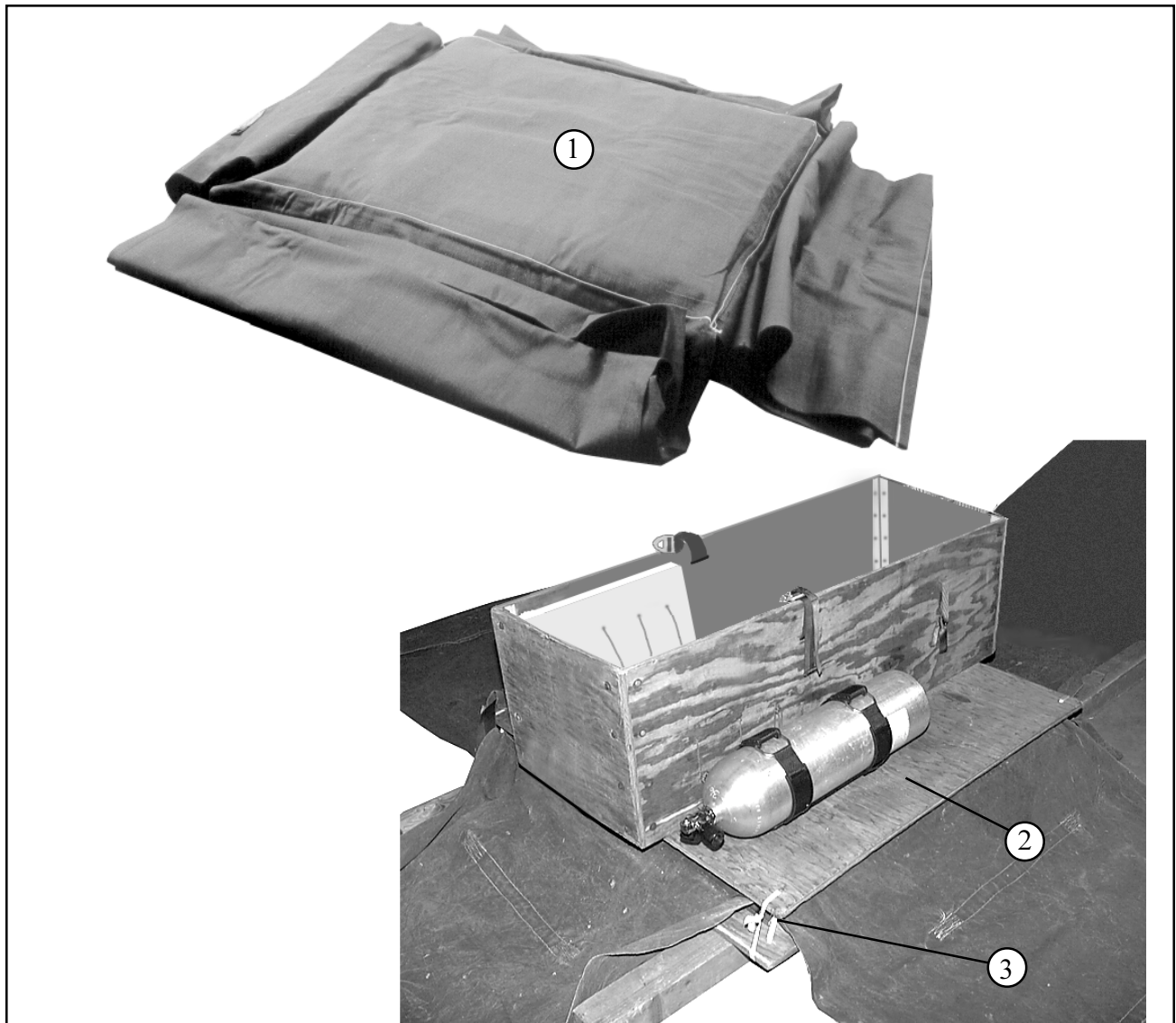


Figure 3-76. Engine protection box constructed (continued)





- ① Center the A-22 cover assembly over the scuff pad. Tuck the slings and cover flaps around the skid to allow working space.
- ② Center the base of the engine box over the skid and the A-22 cargo bag.
- ③ Tie the corners of the skid to the corners of the engine box using the lengths of 1/2-inch tubular nylon webbing placed in step 3 of Figure 3-81.

*Figure 3-82. Engine box placed*

### **3-91. Preparing Engine and Securing Engine in Box**

Prepare a 35-horsepower MARS submersible engine and secure it in the engine box as described below:

**a.** Prepare the engine with the assistance of a boat operator as described below.

**(1)** Place the shift lever in the NEUTRAL position.

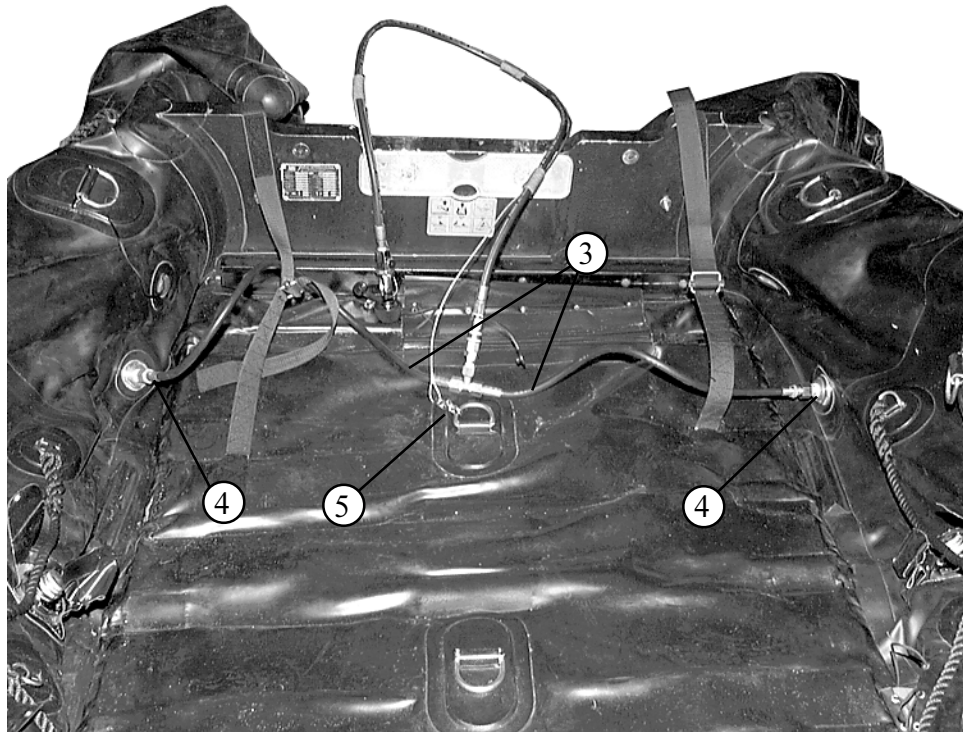
**(2)** Open the throttle fully.

**(3)** Place the dewatering valve in the OUT position.

**(4)** Coat the ignition components with moisture-resistant sealer.

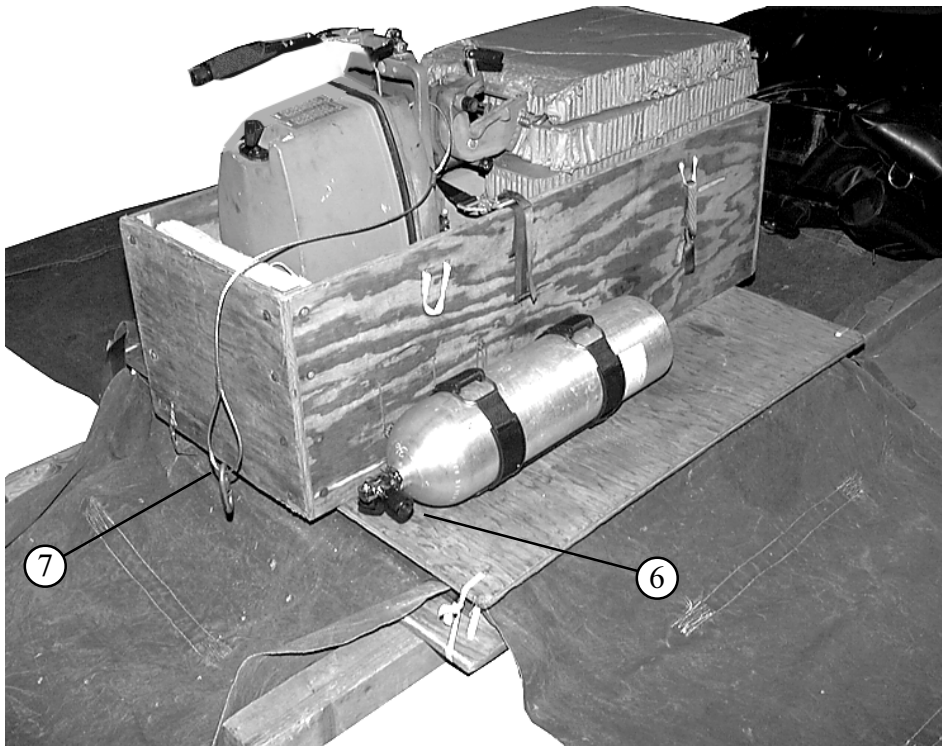
**b.** Place the engine in the engine box, pad it with honeycomb, and secure it as shown in Figure 3-83.





- ③ Connect the two Zodiac high-pressure inflation hoses to the Zodiac tee tube.
- ④ Connect the Zodiac high-pressure inflation hoses to the bouyancy tubes.
- ⑤ Connect the safety lanyard to the aft center D-ring with a small clevis.

*Figure 3-85. Inflation system prepared (continued)*



- ⑥ Be sure that the cylinder is placed and secured in its holder exactly as shown, and that the hand wheel faces away from the box wall.
- ⑦ Place a carabiner or small clevis on the engine securing cable.

*Figure 3-85. Inflation system prepared (continued)*

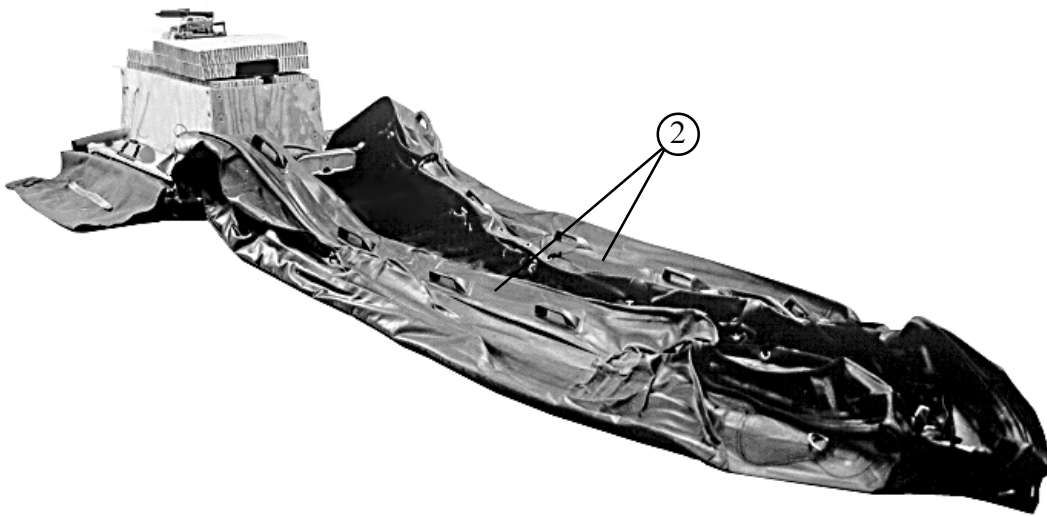
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### 3-93. Collapsing and Folding Boat, Completing Inflation System Connection and Loading Fuel Tanks

Collapse the boat, attach it to the engine, and connect the inflation hoses to the cylinder as shown in Figure 3-86. Fold the boat over the engine box as shown in Figure 3-87. Stow the fuel tanks and make the final folds as shown in Figure 3-88.

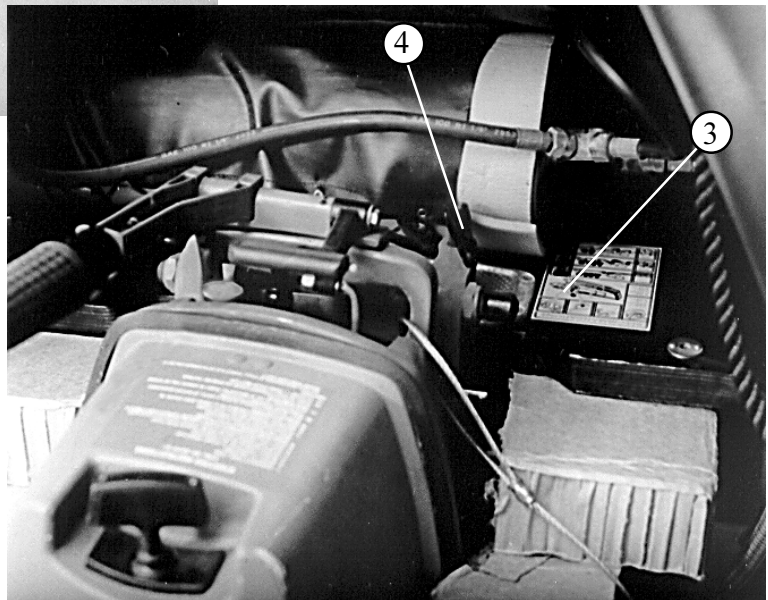
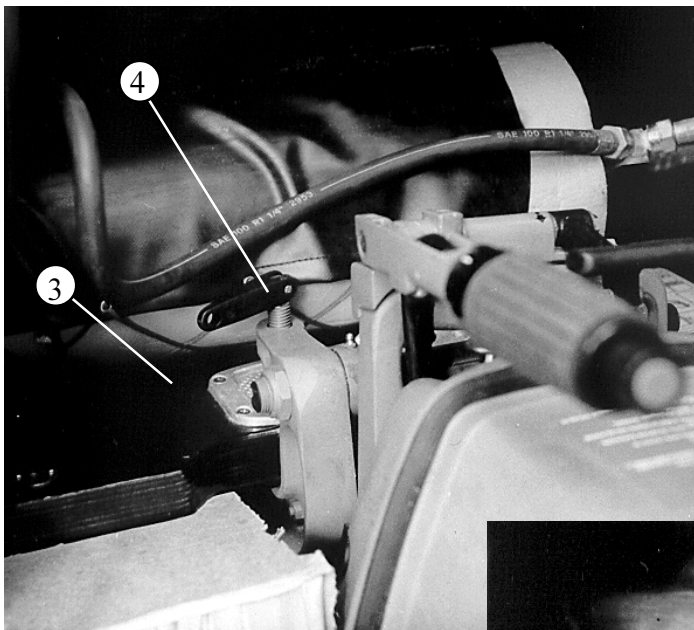
**CAUTION:**

**BE SURE THAT THE ISOLATOR CLAMPS ARE REMOVED FROM THE SHOCK ABSORPTION TUBES AND STOWED. BE SURE ALSO THAT ALL INFLATION VALVES ARE CLOSED AND IN THE CENTER OF THE INFLATION (RED) POSITION.**



- ① Use an industrial strength vacuum cleaner to vacuum the air out of the bouyancy tubes and the keel chamber of the boat.
- ② Fold the side tubes in toward the center. The bottom seams of the bouyancy tubes will lie along the edge of the deflated boat. The left and right tubes will touch as they are folded toward the center of the boat.

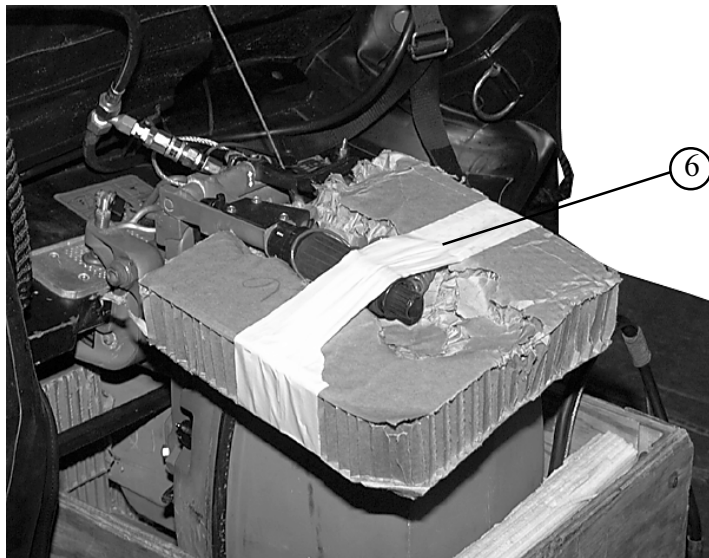
*Figure 3-86. Boat collapsed and attached to engine, and final inflation system connection made*



- ③ Open the mounting clamps on the engine. Lift the transom of the boat with the help of assistants and slide the transom into the engine mounting clamps. Crush the surrounding honeycomb, if necessary.
- ④ Be sure that the clamps are aligned with the metal engine mounting pads on the transom. Tighten the engine mounting clamps.
- ⑤ Attach the engine safety cable to the ring provided on the transom using a small clevis, or the locking carabiner installed in Figure 3-85, step 5 (not shown).

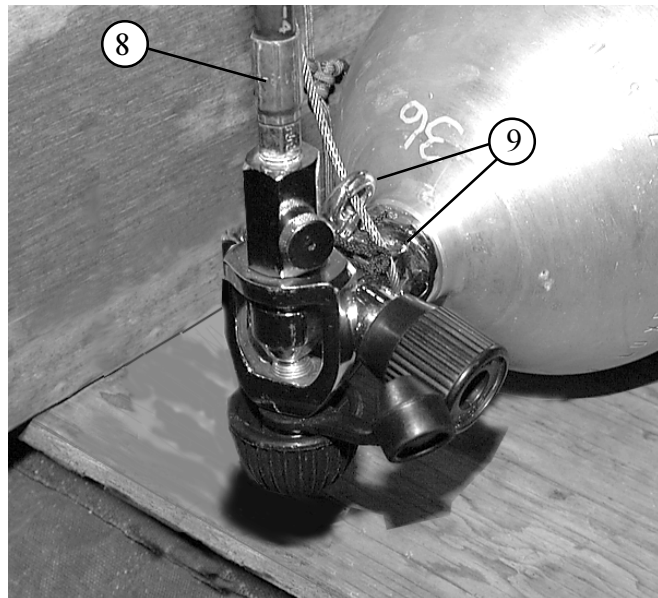
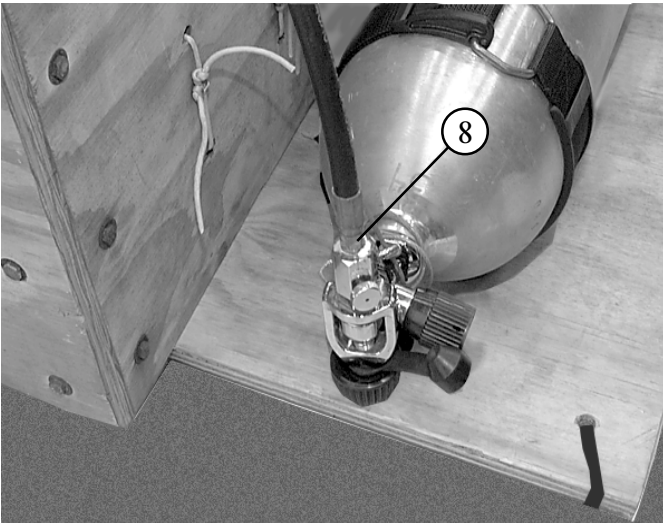
*Figure 3-86. Boat collapsed and attached to engine, and final inflation system connection made (continued)*





- ⑥ Center the motor control handle in a 12- by 12-inch piece of honeycomb. Crush the honeycomb to allow the handle to lay in it. Secure the honeycomb to the handle with two turns of masking tape.
- ⑦ Route the main inflation hose down into the box on the left side. Allow a smooth turn of the hose out of the box to where it joins the cylinder valve.

*Figure 3-86. Boat collapsed and attached to engine, and final inflation system connection made (continued)*



- ⑧ Connect the inflation tube in its connector.
- ⑨ Route the lanyard through the ring, and attach it to its connector.

*Figure 3-86. Boat collapsed and attached to engine, and final inflation system connection made (continued)*



- ① Fold the boat up onto the box so that the second floor D-ring is nearly even with the front edge of the box. Be sure that the floor slats lie flat and that the inflation system connections are intact.

NOTE: ANY EQUIPMENT, SUCH AS RUCKSACKS, MAY BE STOWED AT THIS STAGE ALONG THE SIDES OF THE BOX. DO NOT EXCEED THE DIMENSIONS OF THIS SPACE OR THE CAPACITY OF THE CARGO PARACHUTES. USE THE PRE-POSITIONED TYPE III NYLON CORD TO SECURE THE EQUIPMENT.

*Figure 3-87. Boat folded over engine box*





- ⑩ Pass a single length of type I, 1/4-inch cotton webbing through the support web at the second lateral strap. Tie each end to the break cord attaching strap on each parachute deployment bag.

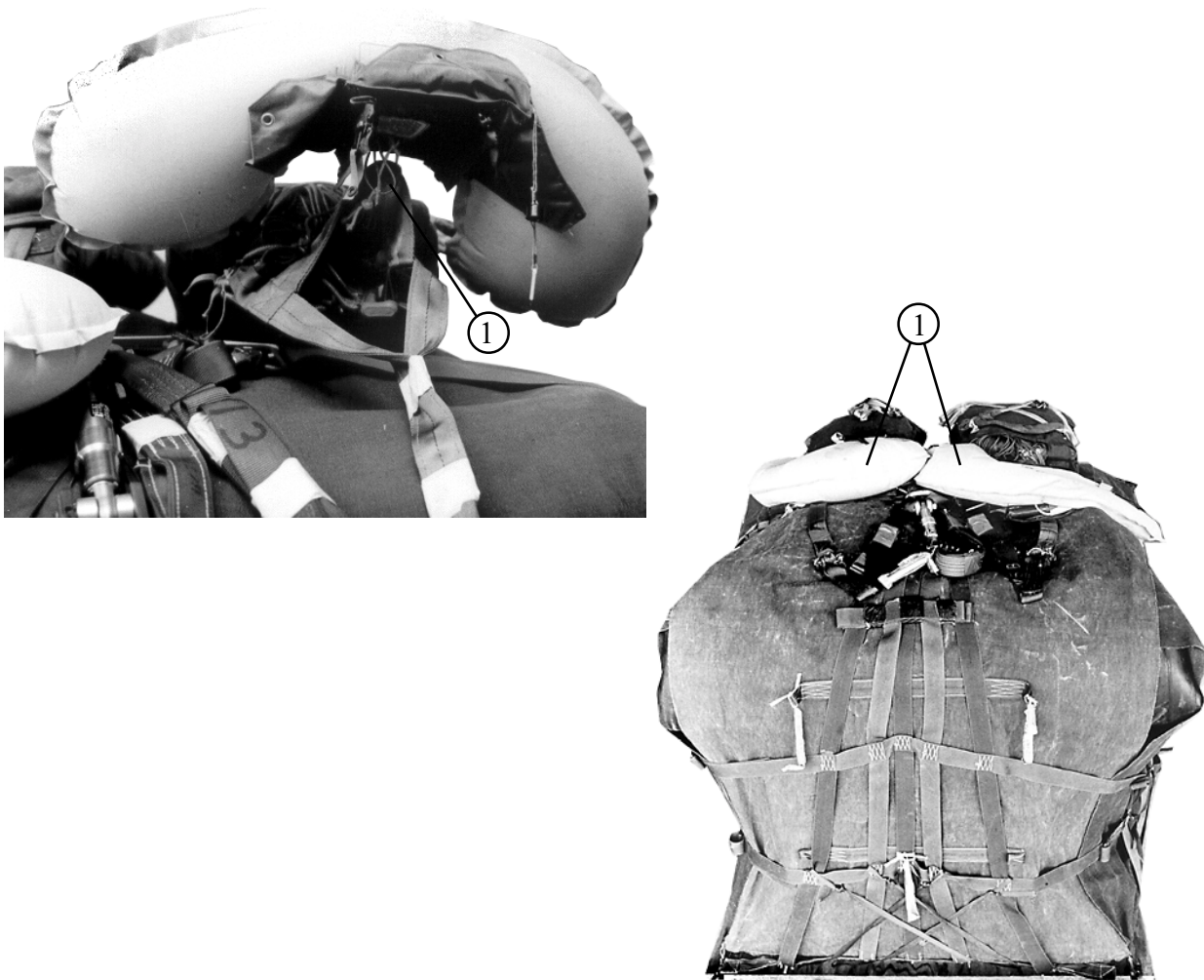
NOTE: A STROBE LIGHT IS SHOWN AT LOWER RIGHT. LOCAL OPERATING PROCEDURE OR MISSION REQUIREMENTS MAY DICTATE USE OF SPECIAL LIGHTING.

*Figure 3-91. Riser extensions and parachutes installed (continued)*

### 3-96. Installing Flotation Devices and Chemical Lights (Optional)

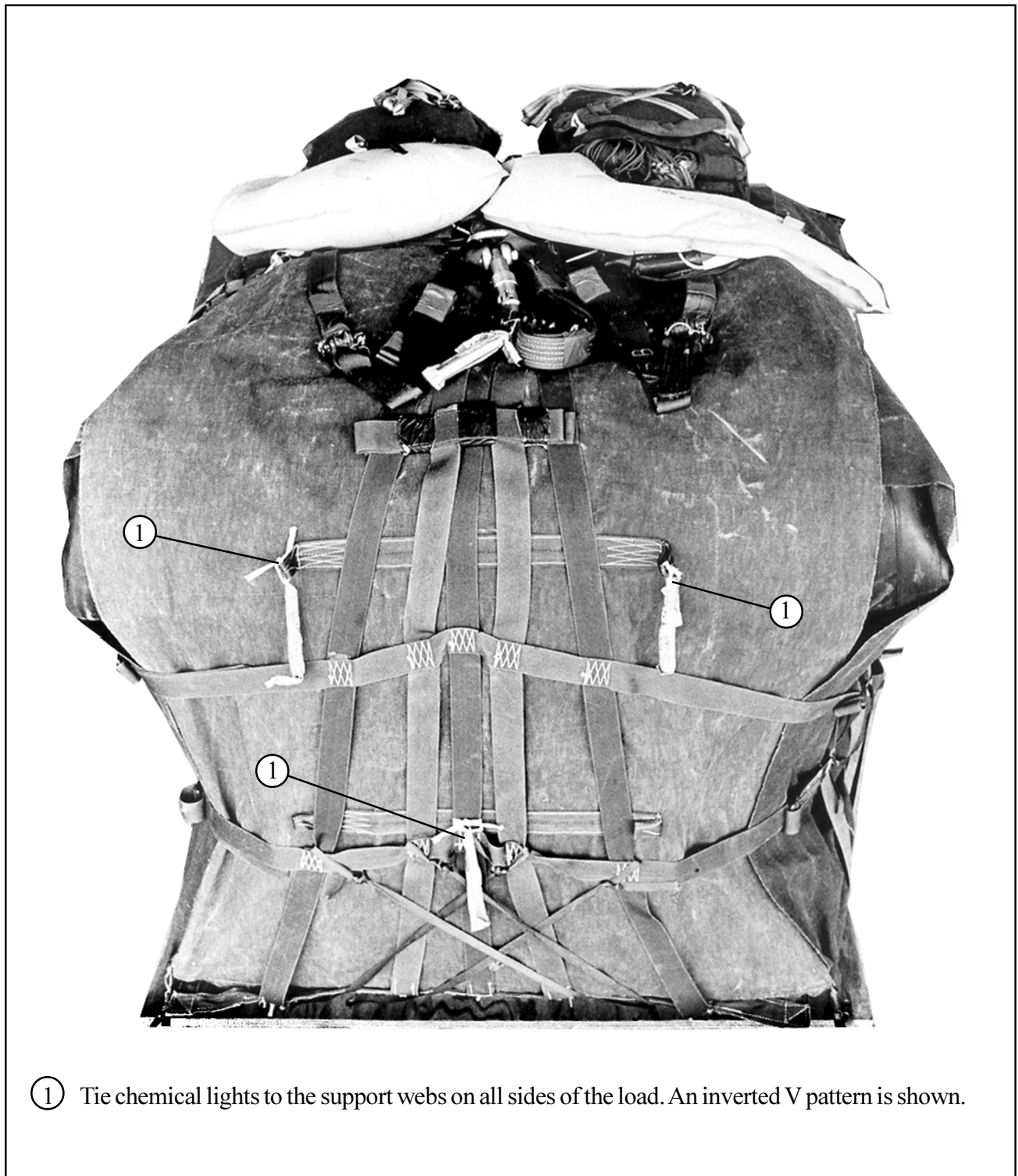
Install flotation devices to aid in the recovery of parachutes for training drops as shown in Figure 3-92. Install chemical lights for night operations as shown in Figure 3-93.

NOTE: FLOTATION DEVICES AND CHEMICAL LIGHTS MAY NOT BE REQUIRED FOR OPERATIONAL DROPS.



① Tie a flotation device to the H-bar of the riser harness of each parachute with type III nylon cord.

*Figure 3-92. Flotation devices installed*



*Figure 3-93. Chemical lights installed for night operations*



### 3-97. Marking Rigged Load

Mark the rigged load according to FM 10-500-3/TO 13C7-1-11 and as shown in Figure 3-94.



NOTE: THE LOAD SHOWN INCLUDES 10 GALLONS OF FUEL AND NO ADDITIONAL EQUIPMENT.

#### RIGGED LOAD DATA

Weight.....	600 pounds
Maximum load weight allowed with two T-10 parachutes.....	900 pounds
Height.....	56 inches
Width.....	51 inches
Length.....	51 inches

*Figure 3-94. Zodiac F470U boat rigged in A-22 cargo bag for low-velocity airdrop*

### 3-98. Equipment Required

The equipment required to rig the F470U boat in the A-22 cargo bag is listed in Table 3-3.

**Table 3-3. Equipment required for rigging F470U boat in A-22 cargo bag**

National Stock Number	Item	Quantity
7125-00-577-5858	Aluminum, angle, 90 degrees	As required
1670-00-587-3421	Bag, cargo, A-22	1
1670-00-568-0323	Band, rubber, parachute	As required
local purchase	Bolt, 1/4- by 1 1/2-in, galvanized	136
No NSN	Charging yoke, SCUBA, w/ dust cap	1
4030-00-360-0304	Clevis, suspension, 5/8-in (small)	1
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
No NSN	Cylinder, SCUBA, compressed air	1
No NSN	Disconnect, 1/4-in, stainless steel, male, NPT	1
No NSN	Disconnect, 1/4-in, stainless steel, female, NPT, w/ safety detent	1
	Flotation device,	
4220-00-059-6061	LPU 3/P or	2
4220-00-657-2197	B7	2
8135-01-005-8974	Foam	2 sheets
5330-01-363-2634	Gasket, paper	4
No NSN	Hose, Zodiac, high-pressure inflation	2
No NSN	Hose, rubber, 1/4-in diam, 60-in length, high-pressure, 3000 psig, w/ male and female threaded ends	1
No NSN	Lanyard, safety, braided stainless steel, w/ clips	1
	Light, chemical, wand,	
6260-01-074-4229	Green	As required
6260-01-178-5559	Red	As required
1670-00-783-5988	Link assembly, Type IV	1
No NSN	Mounting plate, single, SCUBA	1
local purchase	Nut, hexagonal, 1/4-in, galvanized	136
1670-00-753-3928	Pad, energy-dissipating, honeycomb	2 sheets
1670-01-247-7151	Parachute, T-10B (modified for cargo)	2
5530-00-128-4981	Plywood, 3/4-in:	
	17- by 18-in	2
	17- by 51-in	2
	48- by 48-in	2
1670-01-310-2875	Release, cargo parachute, hydraulic	1
5340-00-875-1861	Snap, parachute harness	3
1670-00-925-7843	Static line, personnel, (T-10 /MC1B/C)	1
1670-00-738-5879	Strap, connector, extraction, 120-in	2
	Tape:	
7510-00-266-6710	Masking, 2-in	As required
7510-00-266-5016	PSA, cloth-backed, adhesive, 2-in	As required
4730-01-364-6035	Tube, tee, Zodiac	1
No NSN	Valve, SCUBA	1
1670-00-986-1139	V-ring assembly	3
local purchase	Washer, fender, 1 1/2-in, galvanized	272
	Webbing:	
8305-00-268-2411	Cotton, type I, 1/4-in	As required
8305-00-082-5753	Nylon, tubular, 1/2-in	As required
8305-00-263-3591	Nylon, Type VIII	As required

## CHAPTER 5

**RIGGING THE NAVAL SPECIAL WARFARE RIGID INFLATABLE BOAT  
FOR LOW-VELOCITY AIRDROP****5-1. Description of Load**

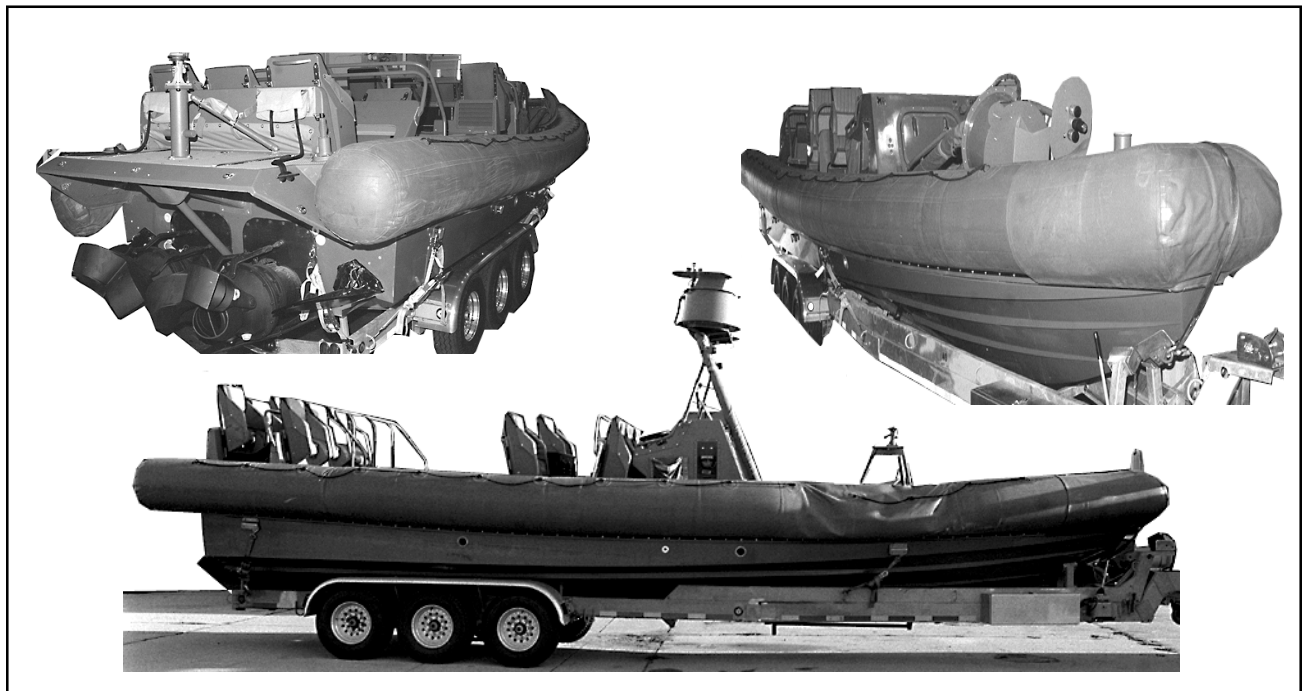
The NSW RIB is a high-speed boat designed to be airdropped, and quickly recovered. It is rigged on a 21-foot Maritime Aerial Delivery System (MADS) platform. The platform separates from the boat during deployment, and drops with its own G-12 parachute. The platform is easily recoverable and re-usable.

The load requires four G-11 cargo parachutes. A water-activated release system, with the M-2 release as a back-up, ensures separation of the parachutes when the boat strikes the surface of the water.

The maximum rigged load weight is 20,640 pounds, including an accompanying load that can vary according to the mission. The boat is 100 inches high, 108 inches wide, and 432 inches long.

**CAUTION**

**This load differs greatly from conventional airdrop loads. Strict adherence to these procedures is critical.**



*Figure 5-1. NSW RIB on its trailer*

## 5-2. Platform Prepared

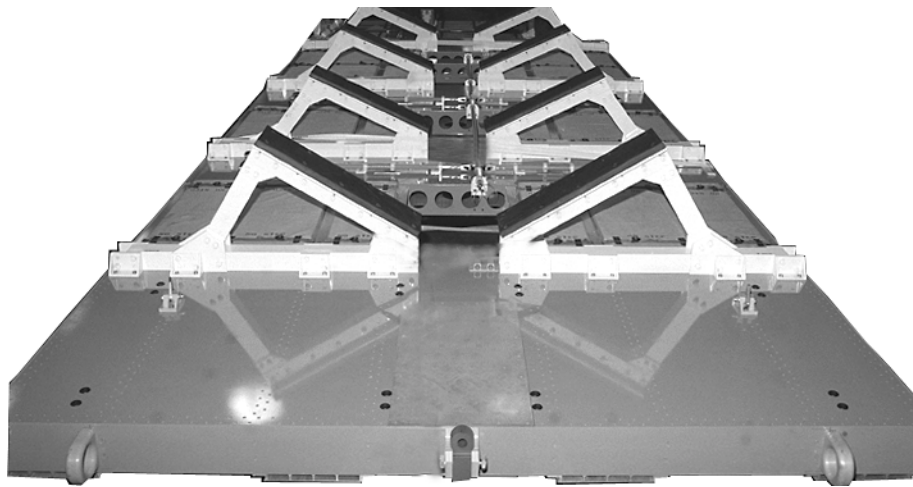
A 21-foot MADS platform is shown in Figure 5-2.

**a.** Prepare and inspect the 21-foot MADS platform as explained in the manufacturer's manual.

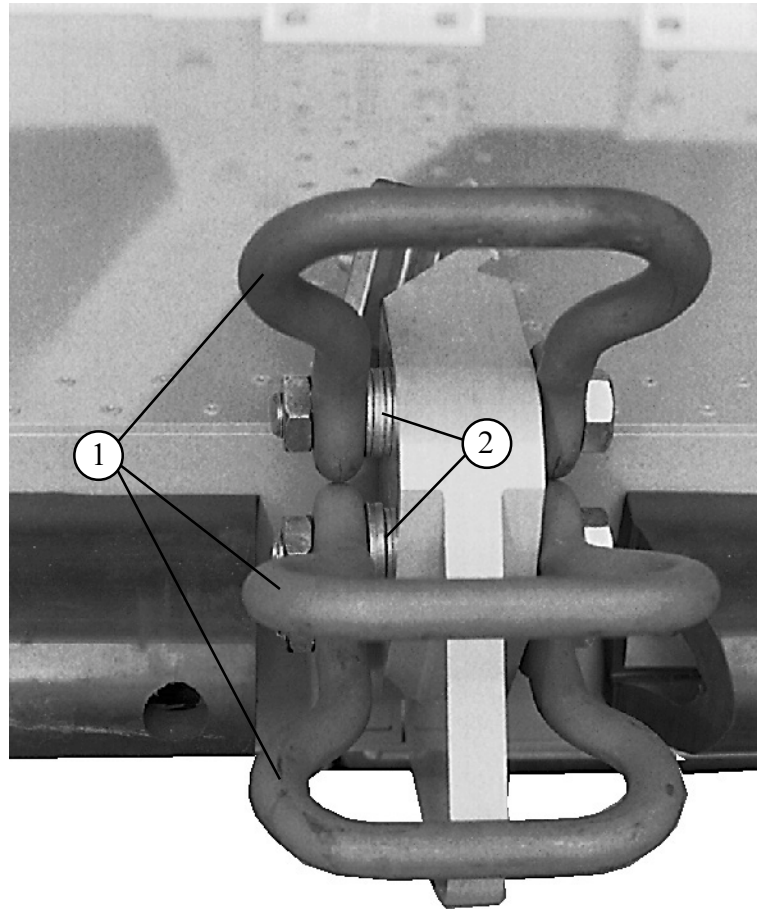
**b.** Install the emergency restraint clevises to the front of the platform as shown in Figure 5-3.

**c.** Install and test the platform release pulley assembly as shown in Figure 5-4.

**d.** Install the platform recovery parachute as shown in Figure 5-5.



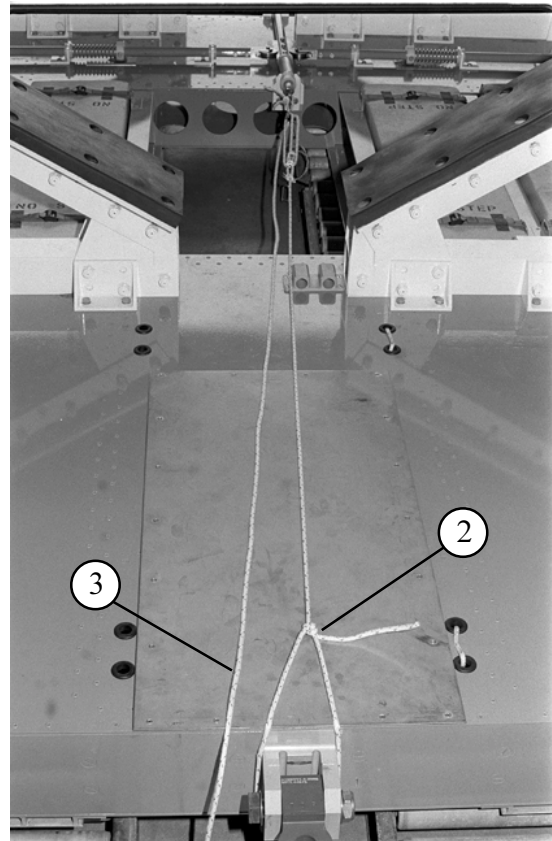
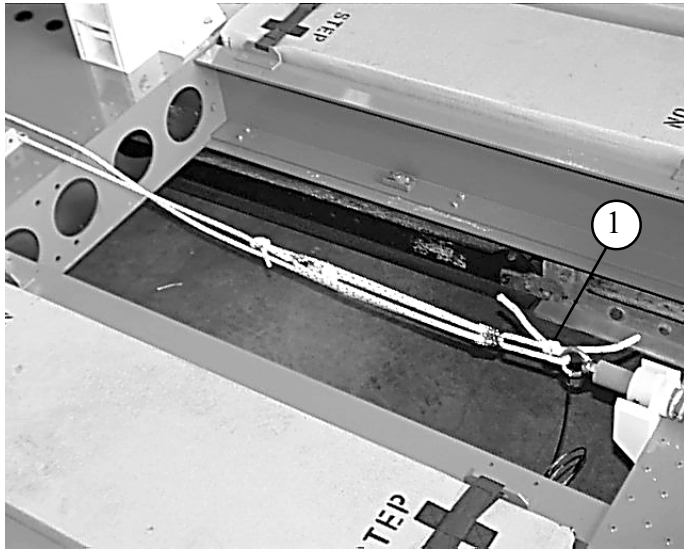
*Figure 5-2. 21-foot MADS platform*



- ① Install a medium clevis assembly to each of the three holes in the links at the front of the platform.
- ② Add washers to ensure a snug fit. Tighten the nuts just enough to allow the clevises to stay in the positions shown.

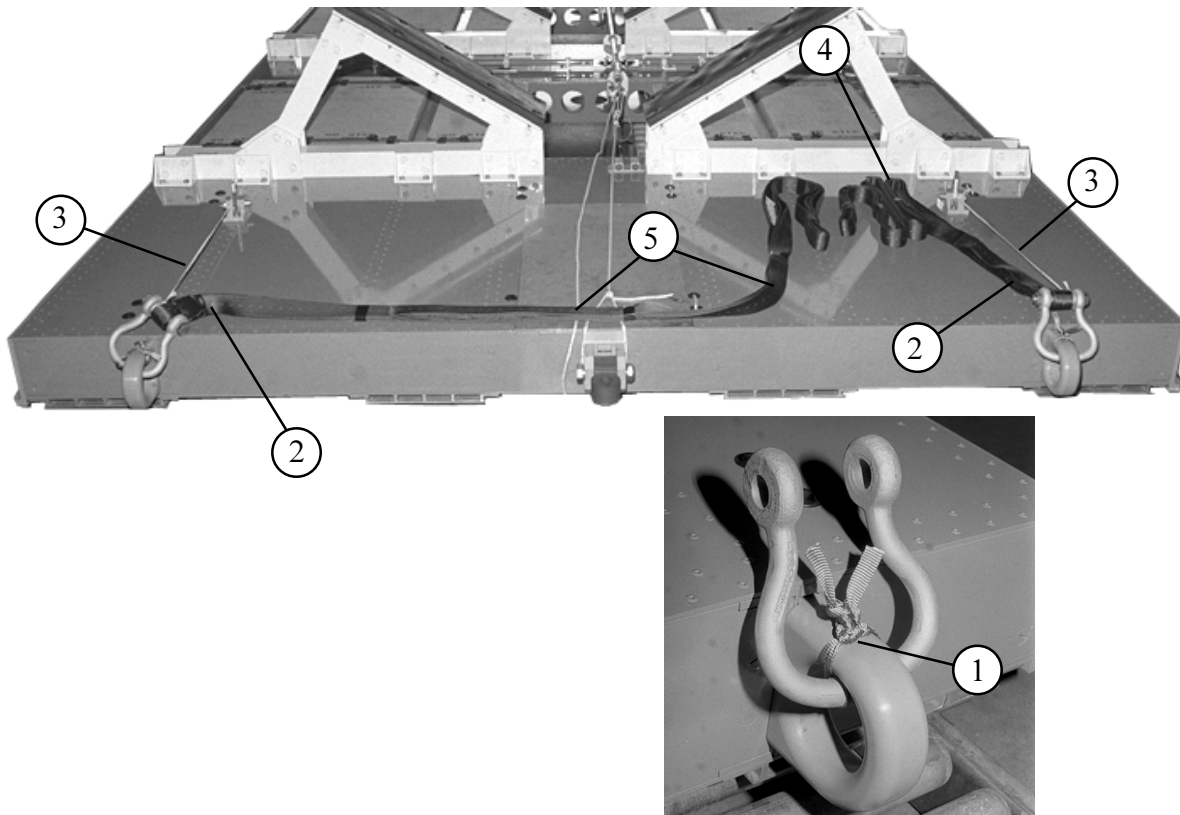
*Figure 5-3. Emergency restraint clevises installed*





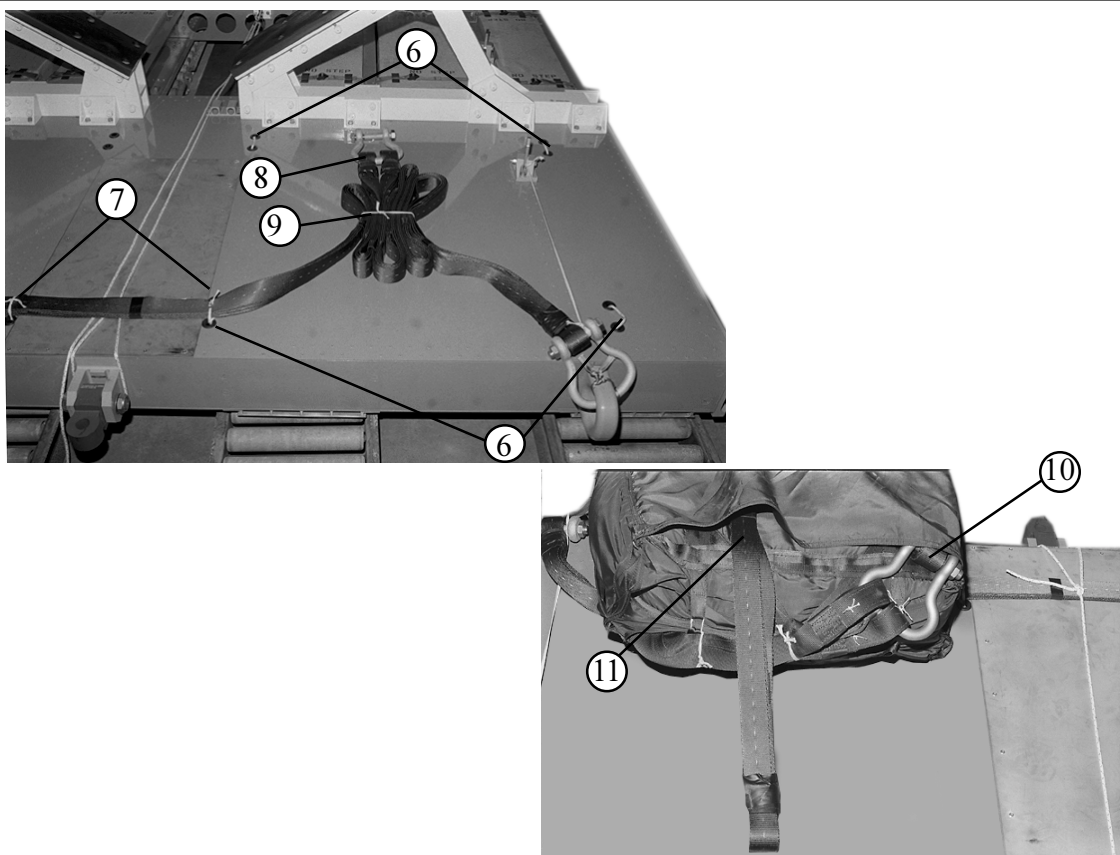
- ① Secure the pulley assembly to the end ring of the push rod with a loop of type III nylon cord tied with a square knot.
- ② Tie the running end to the extraction bracket with a bowline knot as shown.
- ③ Pull on the free end of the cord to ensure that the push rod can be pulled fully against its spring.

*Figure 5-4. Platform release pulley assembly installed*



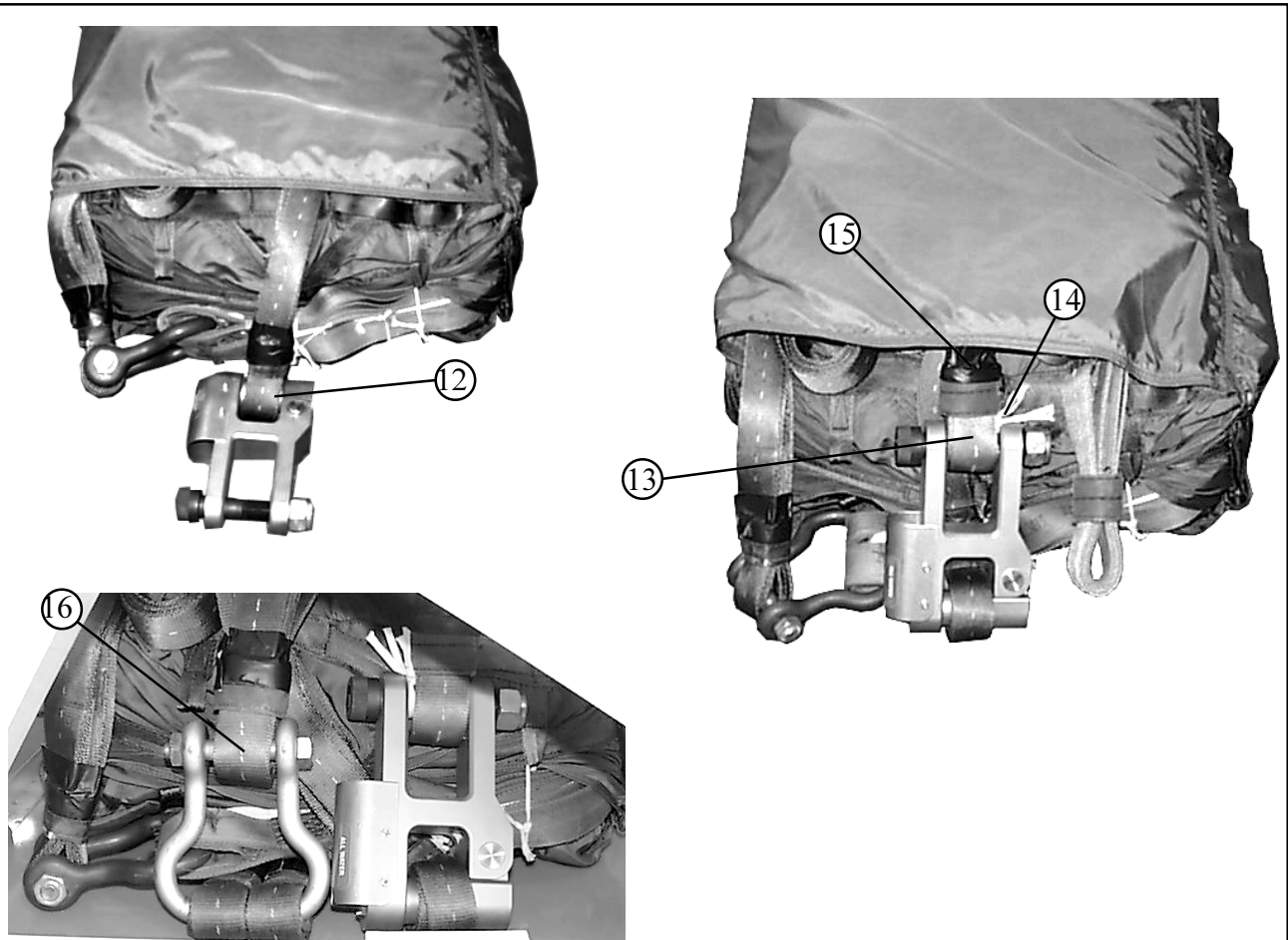
- ① Center a length of 1/2-inch tubular nylon webbing with a girth hitch in the bell of a medium clevis. Bring the ends of the webbing over the top of the suspension point and secure tightly with a surgeon's knot and locking knot, with overhand knots in the running ends. Repeat for the other side of the platform.
- ② Install a 9-foot, 2-loop, Type XXVI nylon sling on the bolt of each medium clevis. Wrench-tighten the nuts.
- ③ Secure each clevis in an upright position with a length of Type I, 1/4-inch cotton webbing tied to a convenient point on the platform
- ④ Pass the right sling up to a point centered between the four pairs of deck holes on the right side of the platform. S-fold the sling as shown.
- ⑤ Pass the left suspension sling across the rear between the pairs of deck holes, and up to meet the right sling. S-fold the left sling in the same way.

*Figure 5-5. Platform recovery parachute and slings installed*



- ⑥ Pass an 18-inch length of 1/2-inch tubular nylon webbing through each pair of deck holes to the right of the extraction bracket. Tie with a square knot, with overhand knots in the running ends. Rotate the knots to the underside of the platform, and tape the nylon webbing.
- ⑦ Tie the left suspension sling to each of the two pairs of deck holes with a single turn of Type I, 1/4-inch cotton webbing.
- ⑧ Place the free ends of both slings in the bell of a medium clevis, and place the clevis against the base of the right rear stanchion.
- ⑨ Tie the folds of the two slings together with a length of Type I, 1/4-inch cotton webbing.
- ⑩ Remove the tripled cotton webbing bag closing tie from the G-12 clevis. Install a 20-ft (2-loop), Type XXVI riser extension on the bolt of the G-12 clevis.
- ⑪ Stow the riser extension in the G-12E bag according to FM 10-500-2/TO 13C7-1-5.

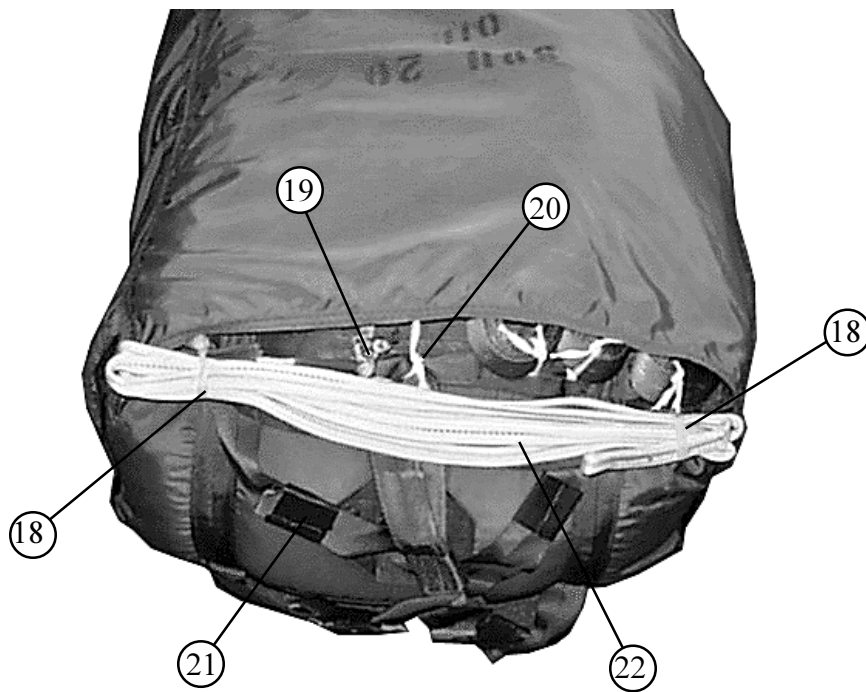
Figure 5-5. Platform recovery parachute and slings installed (continued)



- ⑫ Inspect a water-activated parachute release (WAPR) according to the manufacturer's instructions. Attach the discharge end of the WAPR to the riser extension.
- ⑬ Attach a 3-foot, 2-loop, type XXVI nylon sling to the stationary bolt of the WAPR.
- ⑭ Safety the bolt of the WAPR to the G-12 bag stow bar with one turn of doubled Type I, 1/4-inch cotton webbing.
- ⑮ Fold the 3-foot sling in half and secure it with masking tape (not shown). Place the sling under the G-12 riser extension flap.
- ⑯ Turn the parachute so that the WAPR faces the front of the platform. Connect the free end of the 3-foot sling installed in step 13 above to the clevis at the end of the platform suspension slings.

*Figure 5-5. Platform recovery parachute and slings installed (continued)*





- ①7 Remove the deployment bag and the snap hook from a T-10 static line with bolt cutters, taking care not to damage the static line (not shown).
- ①8 Girth hitch two retainer bands to each end of the riser extension stow bar.
- ①9 Tie the big loop of the static line to the bridle loop of the G-12 with two turns of single 1/2-inch tubular nylon. Knot the tie on top of the static line loop with a surgeon's knot, locking knot, and overhand knots in the running ends.
- ②0 Safety the bridle loop to the riser extension stow bar with one turn single of Type I, 1/4-inch cotton webbing.
- ②1 S-fold the excess bridle assembly and secure it with tape.
- ②2 S-fold the static line across the rear of the parachute, securing it with the retainer bands installed in step 16. Wrap the retainer bands twice around the static line.

Figure 5-5. Platform recovery parachute and slings installed (continued)

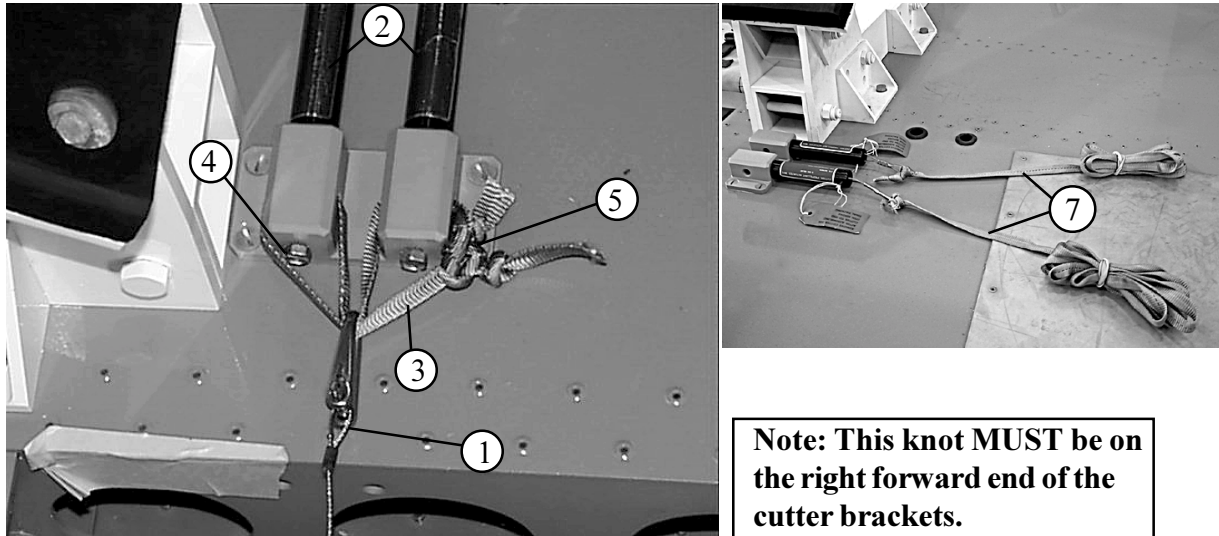


- ②③ Place the G-12 parachute over the suspension slings, and align with the rear edge of the platform as shown. Tie the corners of the G-12 deployment bag to the ties placed in step 6 with type III nylon cord with the core threads removed.

*Figure 5-5. Platform recovery parachute and slings installed (continued)*

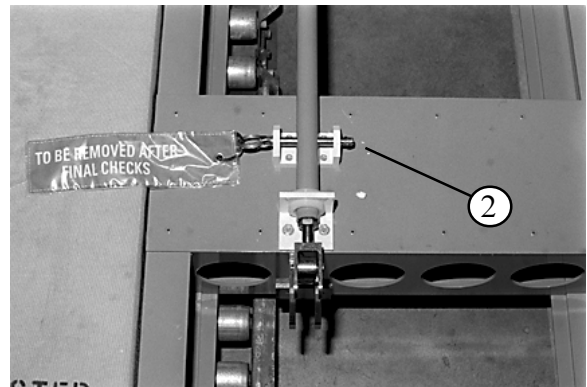
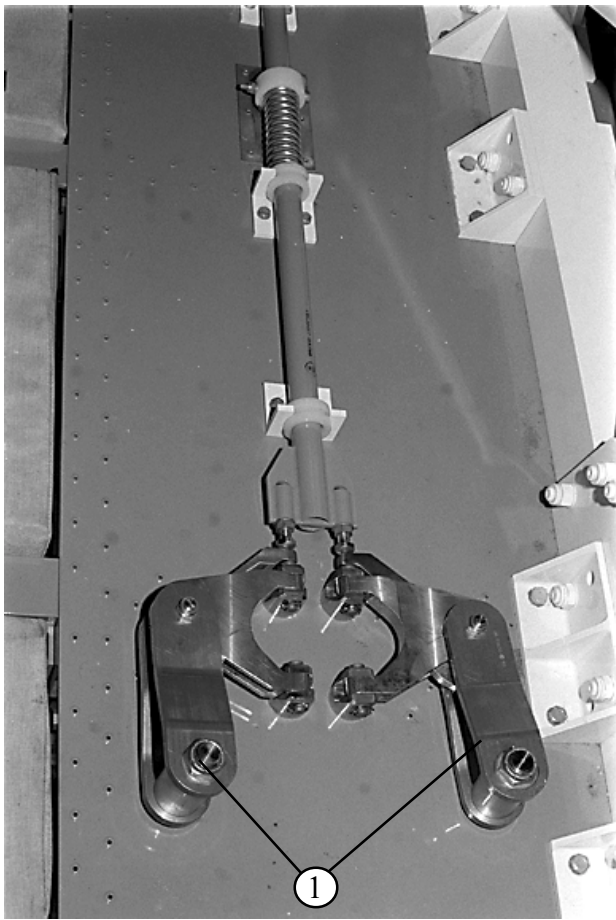
### 5-3. Installing the Platform Release System

Install the components of the platform release system as shown in Figures 5-6 through 5-9.



- ① Connect the drawbar cable to the bolt end of the halyard shackle.
- ② Install two M21 reefing line cutters in the cutter brackets. Ensure that the screws on the sides of the cutters are facing the deck of the platform. Ensure the cotter pins can be removed from the cutters once they are installed.
- ③ Route a length of 1/2-inch tubular nylon as follows:  
 through the right cutter bracket  
 through the bell end of the locking halyard shackle  
 through the inside of the left cutter bracket, and out through the left side  
 back through the bell end of the locking halyard shackle, and up to the other free end of the tie.
- ④ Tighten the screws in the bottom ends of the cutter brackets.
- ⑤ Secure the running ends tightly with a surgeon's knot, locking knot and overhand knots in the running ends.
- ⑥ Disconnect the cable from the halyard shackle. Replace the shackle pin (not shown).
- ⑦ Install a 10-foot length of 1/2-inch tubular nylon webbing to each M21 cutter arming cable with three alternating half hitches and overhand knots in the running ends. S-fold the excess and secure temporarily with retainer bands.

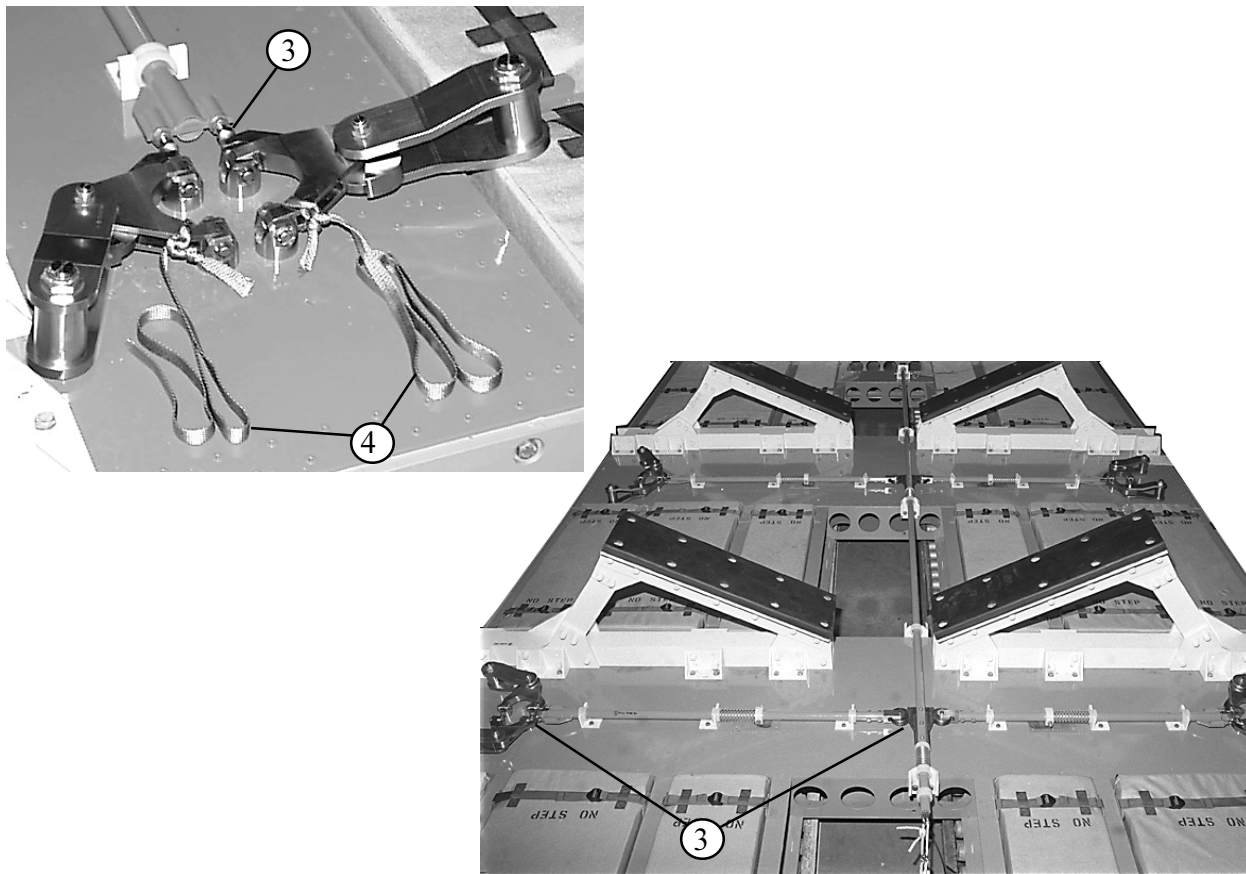
Figure 5-6. Cutters installed



- ① Place a tie-down shackle in each scissor release unit. Be sure that the large nuts face the edge of the platform, and are facing up. Be sure that the scissor units are closed around the shackles.
- ② Put tension on the central push rod with the lanyard attached to the pulley assembly. Insert the T-pin through the push rod holes when the holes are aligned with the pin bracket.

*Figure 5-7. Scissor release units prepared and tested*



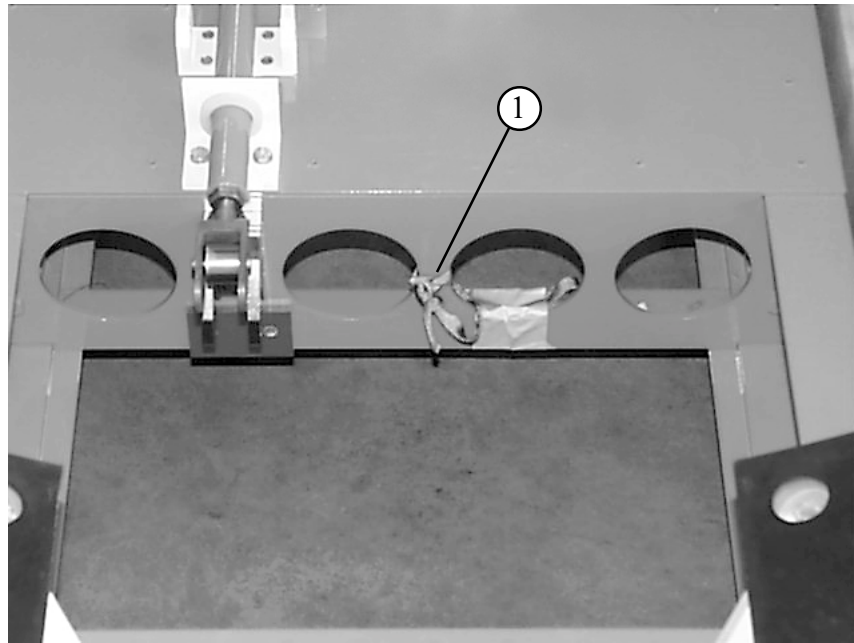


- ③ Check all eight scissor release units to be sure they are held in place by the lateral rods. When the central push rod is under tension and held by the pin, the cams engage the lateral push rods to close the scissor releases.
- ④ Tie a 42-inch length of 1/2-inch tubular nylon webbing to the outside leg of each scissor release unit with three alternating half hitches and overhand knots in the running ends.
- ⑤ Test the scissor release system as follows:  
Have one person remove the T-pin at the front end of the push rod while another person keeps the lanyard attached to the pulley under tension. Have a person hold each pair of shackles. Release the tension from the pulley, and be sure all eight shackles release from the scissor release units (not shown).

*Figure 5-7. Scissor release units prepared and tested (continued)*

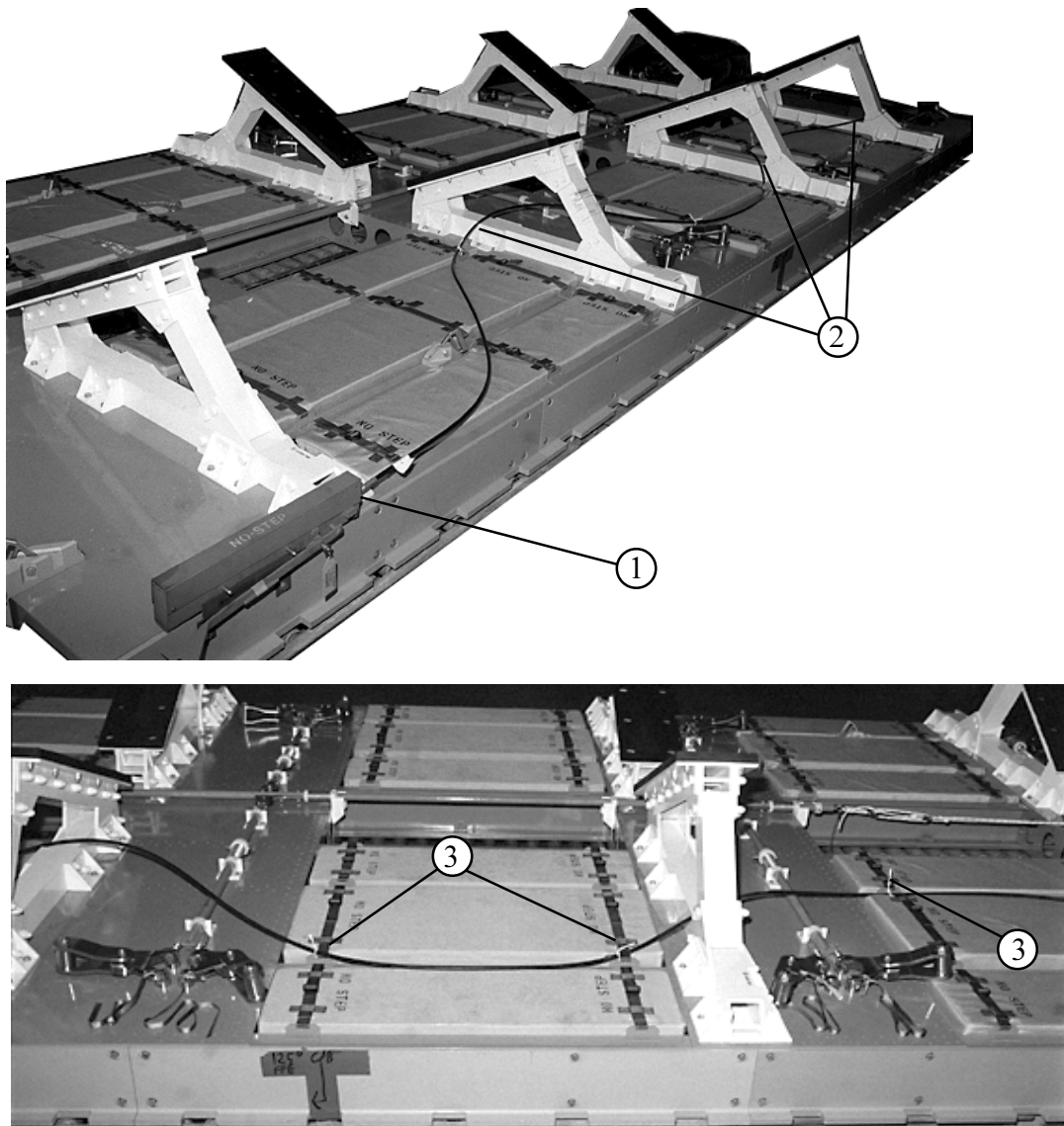
#### 5-4. Installing EFTC

Install the drop arm retaining line as shown in Figure 5-8. Install the EFTC actuator and a 24-foot cable as shown in Figure 5-9.



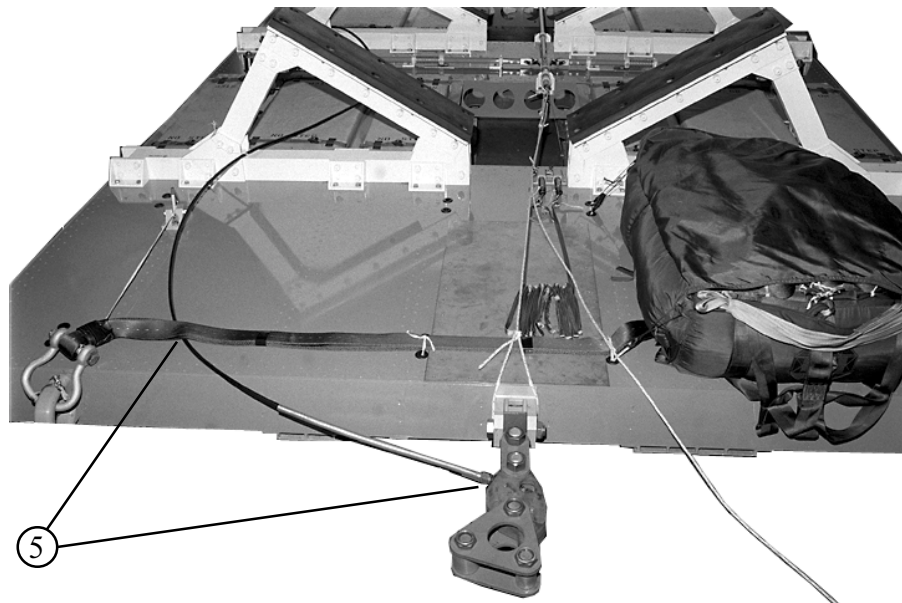
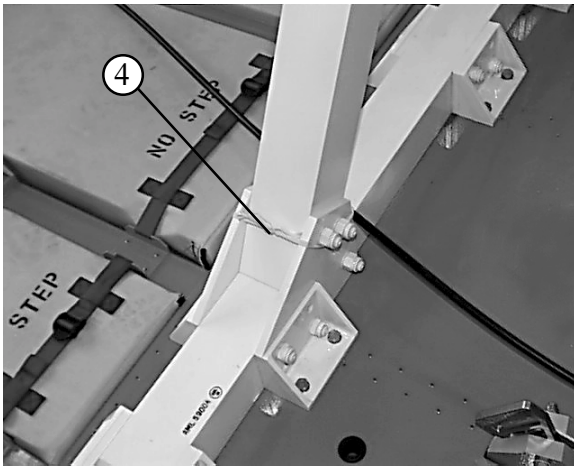
- ① Tie a 60-inch length of 1/2-inch tubular nylon webbing around the metal dividing the first two port holes to the left of the drop arm pivot bracket with three alternating half hitches and overhand knots in the running ends. S-fold the excess and tape it temporarily inside the crossmember so that no part of it extends below the bottom of the platform.

*Figure 5-8. Drop arm retaining line installed*



- ① Mount the actuator in the bracket provided. Install a 24-foot EFTC cable to the actuator.
- ② Route the cable through right stanchions 2, 3, and 4. Be sure that the cable does not contact any spring or push rod end in the push rod system.
- ③ Safety the cable to the flotation device securing brackets whenever possible.

*Figure 5-9. EFTC installed*



- ④ Tie the cable to the left rear stanchion arm with type I, 1/4-inch cotton webbing.
- ⑤ Install the EFTC latch assembly. Be sure the cable is routed under the suspension sling before connecting it to the latch assembly.

**Note: Replace any cable that has been used for a water drop.**

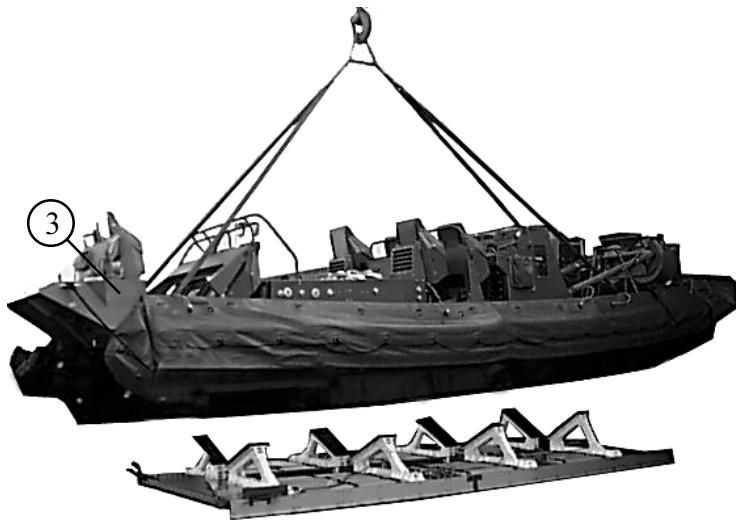
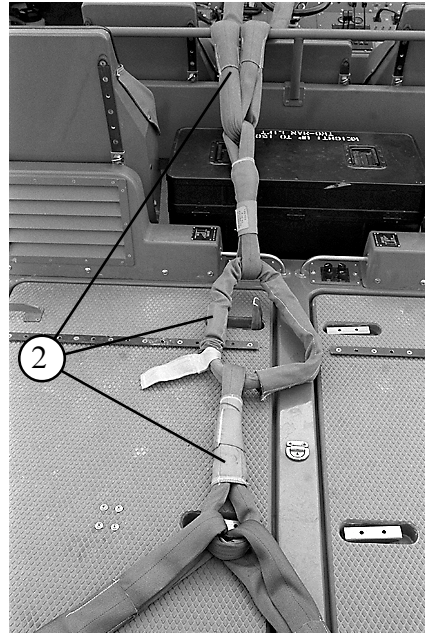
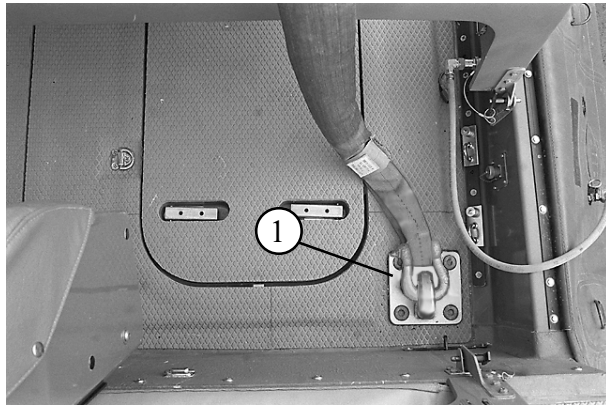
*Figure 5-9. EFTC installed (continued)*



### 5-5. Lifting and Positioning Boat

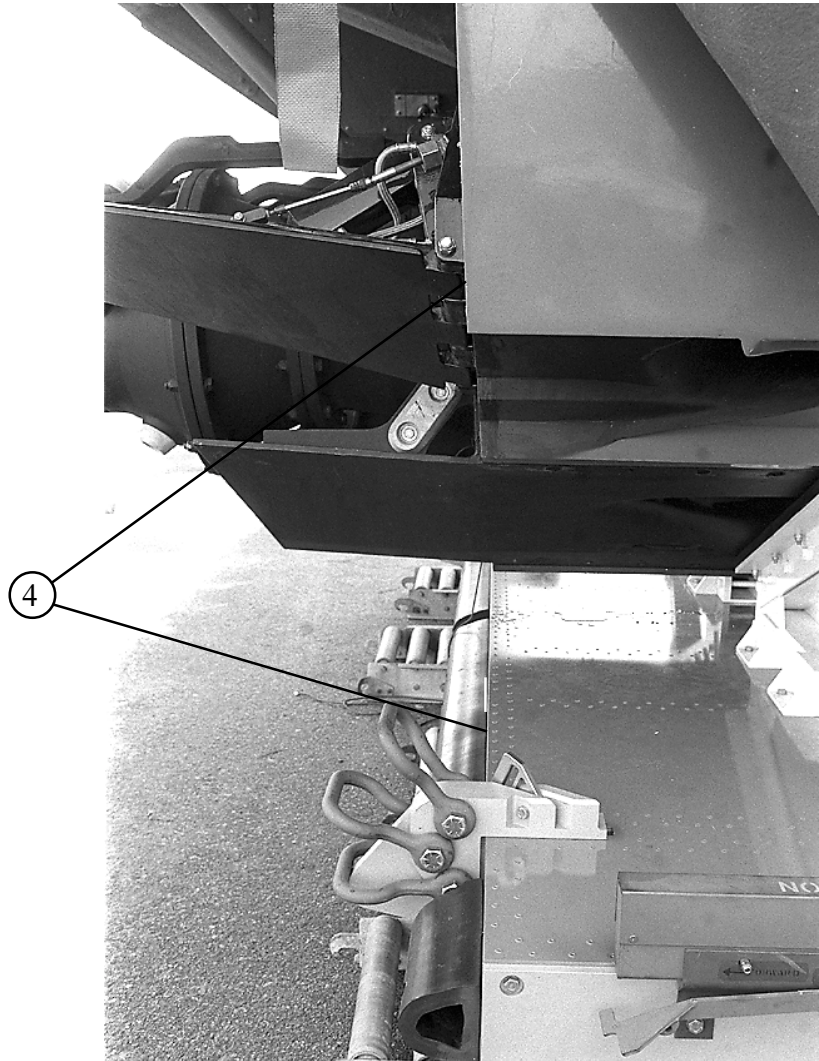
Use the lift kit provided with the boat (four long slings, three short loops, clevises, instructions) to place the boat onto the cradles. Be sure that the

Airdrop Boat Preparation Checklist has been completed and signed before proceeding with the preparation of the boat.



- ① Attach a sling to each lifting provision with a screw-pin clevis, ensuring that the pins are facing inboard to outboard.
- ② Assemble the lift kit according the manufacturer's instructions.
- ③ Position the boat with the bow facing the rear of the platform.
- ④ Remove the lifting slings and shackles after positioning the boat.

*Figure 5-10. Boat lifted and placed on platform*

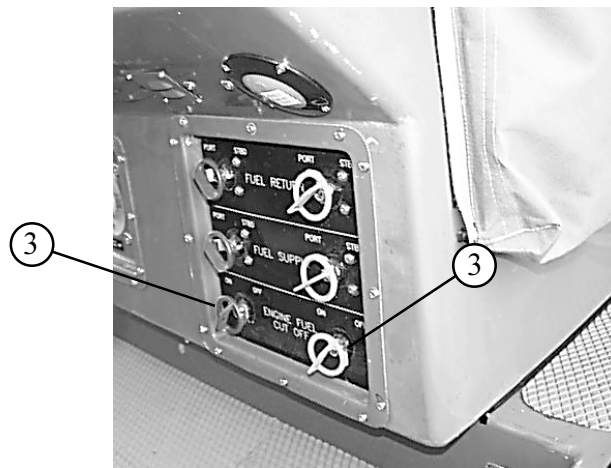
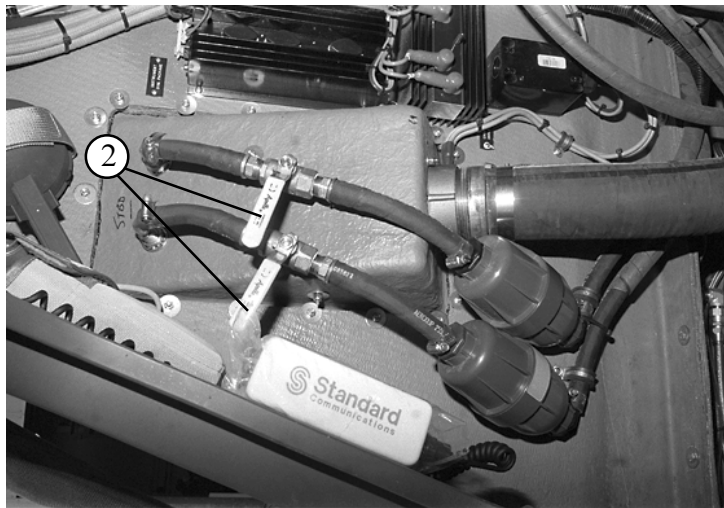


- ④ Align the rear edge of the transom with the front edge of the platform, disregarding the rubber bumpers.

*Figure 5-10. Boat lifted and placed on platform (continued)*

## 5-6. Preparing Boat

Prepare the boat as shown in Figures 5-11 through 5-16.



- ① Ensure that the fuel tanks have no more than 68 gallons (75%) of fuel each.
- ② Close the four fuel vent shut-off valves (two port, two starboard) inside the control access hatch.
- ③ Turn the fuel shutoff valves (the two valves at the bottom) to the “OFF” position.

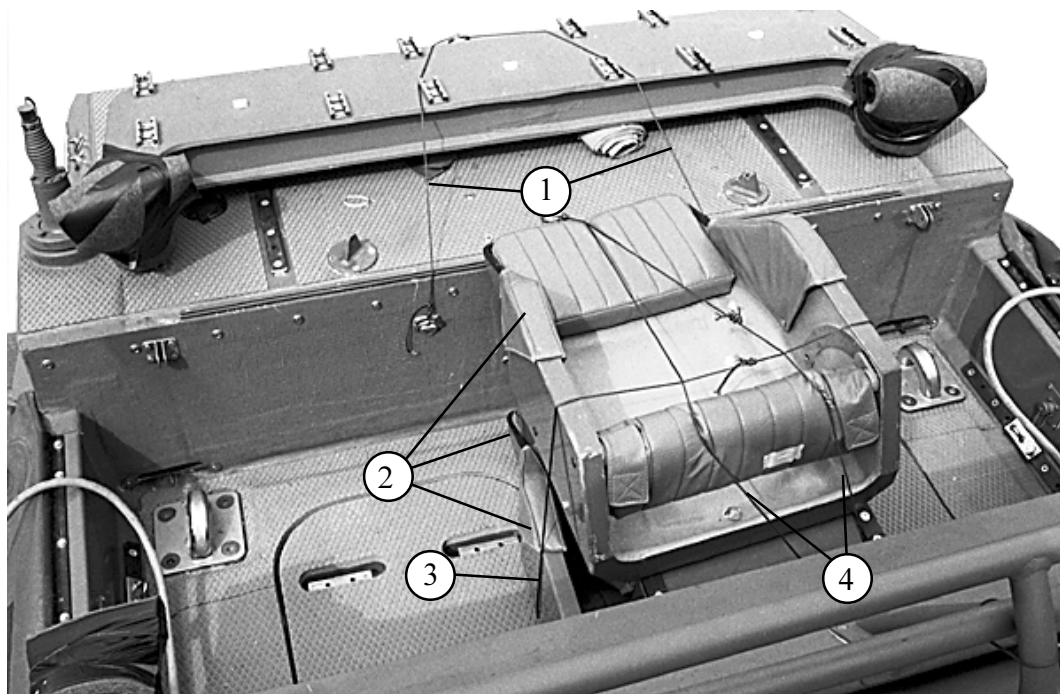
*Figure 5-11. Fuel system prepared*





- ① Remove the forward tow post. Stow it with the gun mount in the forward hatch on top of the first aid and tool boxes. Secure them with the straps provided.

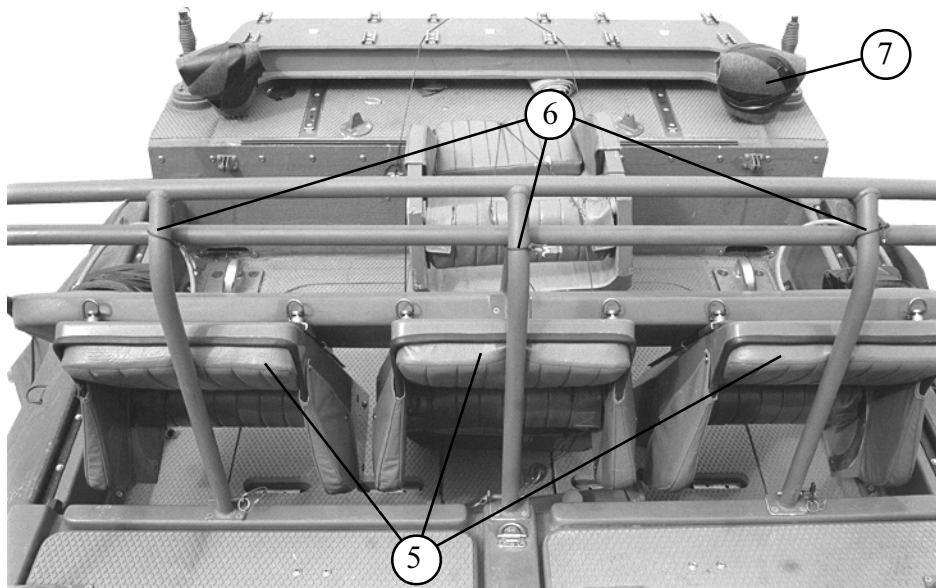
*Figure 5-12. Boat equipment stowed in hatch*



**Note: When the 4th row of bolster seats is removed for missions not needing them, steps 1 through 4 may be omitted.**

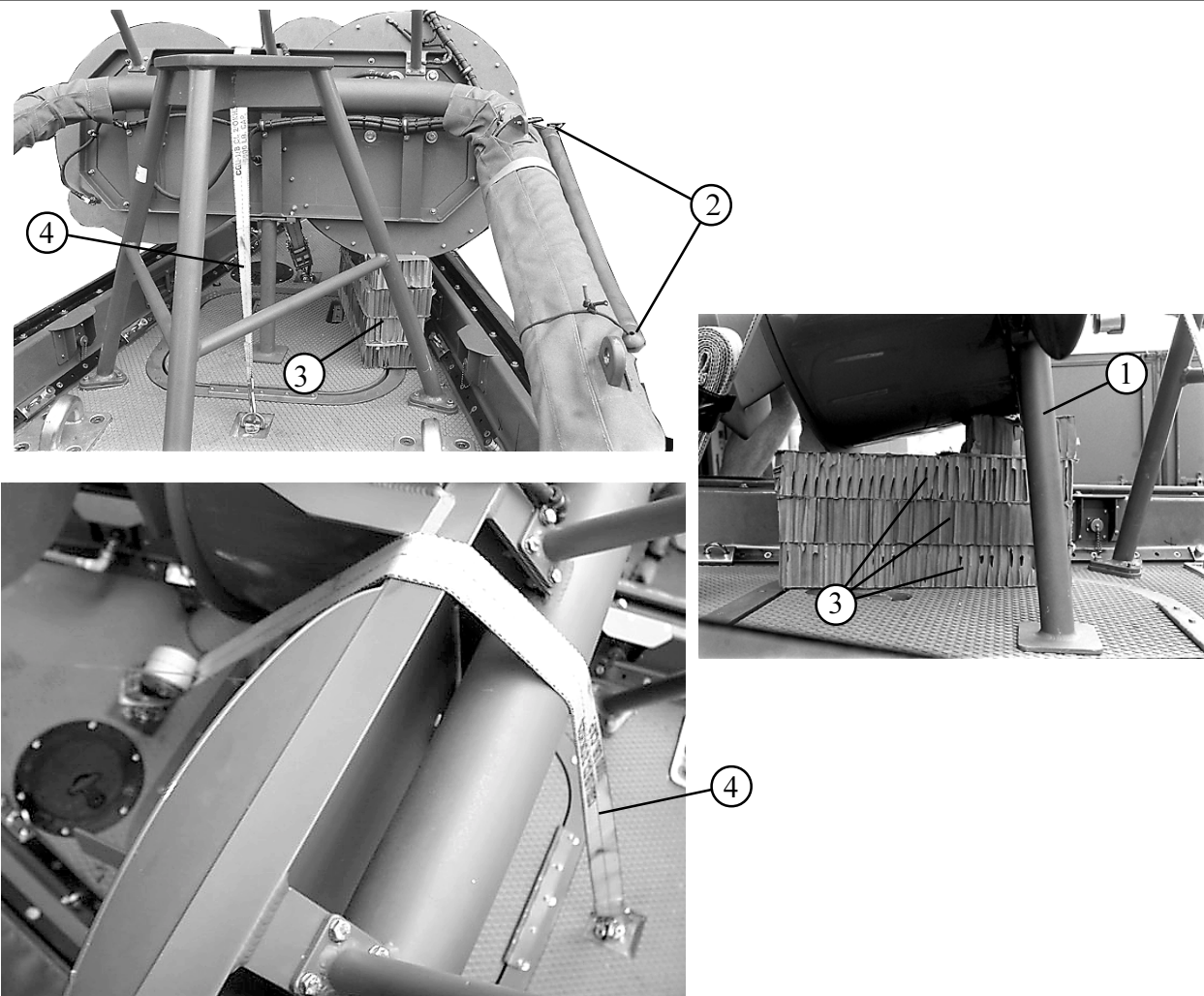
- ① Remove the bolster seats from row 4. Remove the life ring and stow it in hold 2. Fold the row 4 bolster frame back on the rolled and tied splash guard. Secure the bolster frame with a length of type III nylon cord through the left and right deck rings on the swimmer deck, and through the center deck ring at the back of the swimmer deck.
- ② Center one seat on the floor face up. Place a second seat squarely over the first face down. Place the third seat over the second face up.
- ③ Tie all three seats together with a length of type III nylon cord.
- ④ Run a length of type III nylon cord through the deck ring under the third bolster seat row, up through the handle of seat two, over the top seat, and to the top center deck ring on the swimmer deck. Tie both running ends on top of the seats.

*Figure 5-13. Bolster seats stowed*



- ⑤ Lower all the bolster seats in rows 1, 2, and 3 to their lowest position. Fold row 3 bolster seat frame all the way forward.
- ⑥ Tie the frame to the handrail in three places with type III nylon cord.
- ⑦ Pad each corner of row 3 and 4 bolster frames with an 8- by 18-inch piece of felt taped in place.

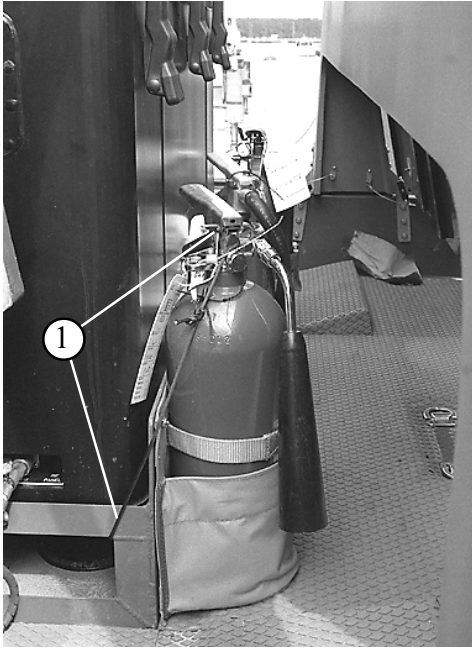
*Figure 5-13. Bolster seats stowed (continued)*



- ① Unbolt the supports for the radar arch and fold the arch forward so that it rests on its support post.
- ② Secure the support arms to the radar arch with type III nylon cord tied through the bolt holes of the arms.
- ③ Glue three 20- by 6-inch pieces and one 6- by 6-inch piece of honeycomb together as shown. Center the honeycomb under the radar unit. The radar unit should be supported by both the support post and the honeycomb.
- ④ Secure the radar arch with a CGU-1B tie-down assembly using the center deck rings, attaching the ratchet end to the front ring. Route the tie-down assembly over the radar unit as shown.

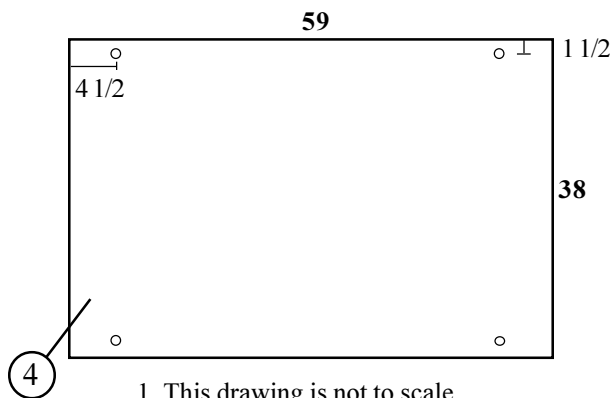
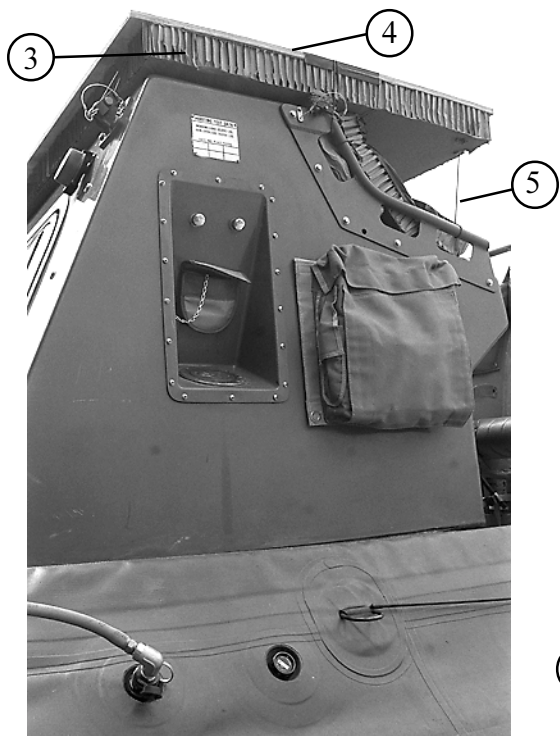
*Figure 5-14. Radar arch folded and secured*



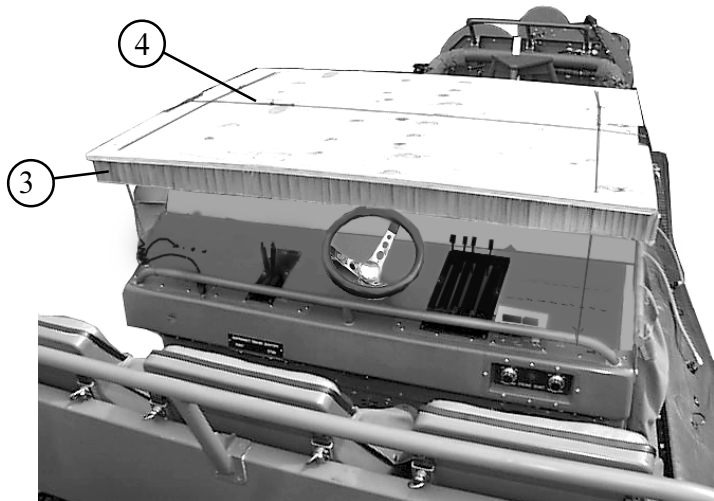


- ① Secure the three fire extinguishers behind the driver's compartment with type III nylon cord. Route the cord under the storage box and through the holes on the necks of the fire extinguishers.
- ② Tie two 12- by 56-inch pieces of honeycomb to the instrument panel, making cutouts to accommodate the controls. Tape the edges of the honeycomb and tie it to the handrail with type III nylon cord.

*Figure 5-15. Console prepared*



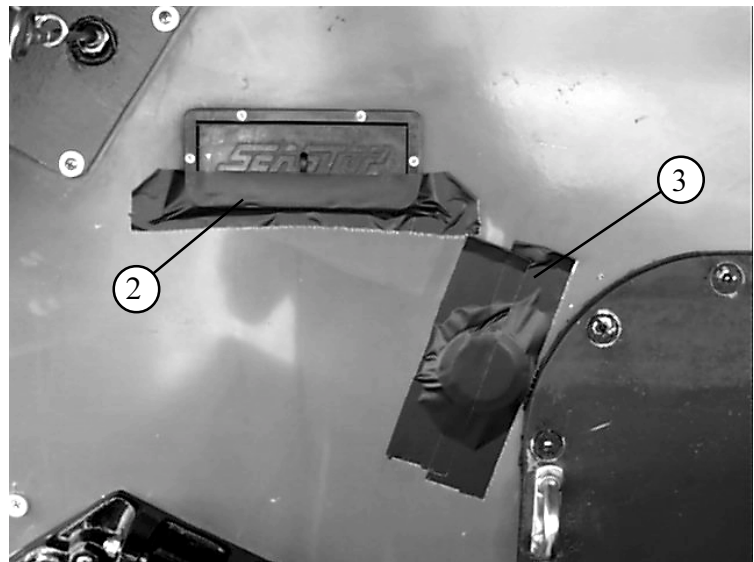
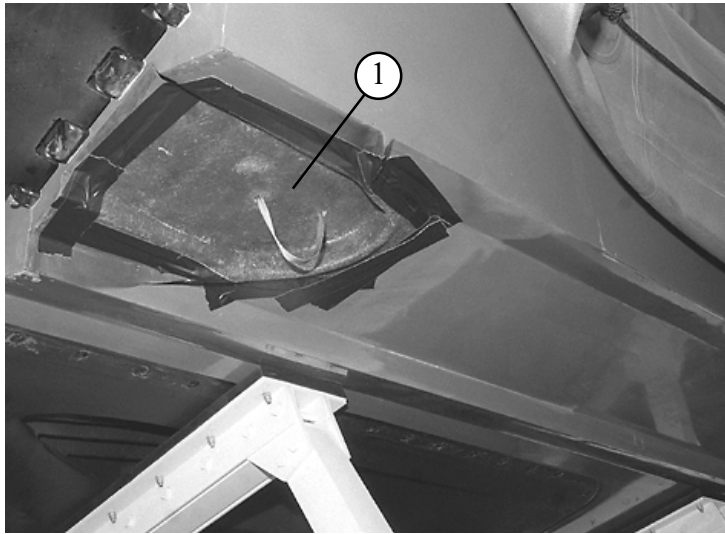
1. This drawing is not to scale.
2. All dimensions are in inches.



- 3 Place a 36- by 59-inch piece of honeycomb over the folded windshield. Crush and cut to ensure that it completely covers the windshield surface.
- 4 Drill 1/2-inch holes in a 1/2- by 38- by 59-inch piece of plywood as shown. Center and glue the plywood over the honeycomb placed in step 4 above. Center a type III nylon cord tie over the center of the plywood from the left to the right handrail.
- 5 Secure the plywood on each side to the console handrails, through the side holes in the plywood and to the push-pull pins.

Figure 5-15. Console prepared (continued)



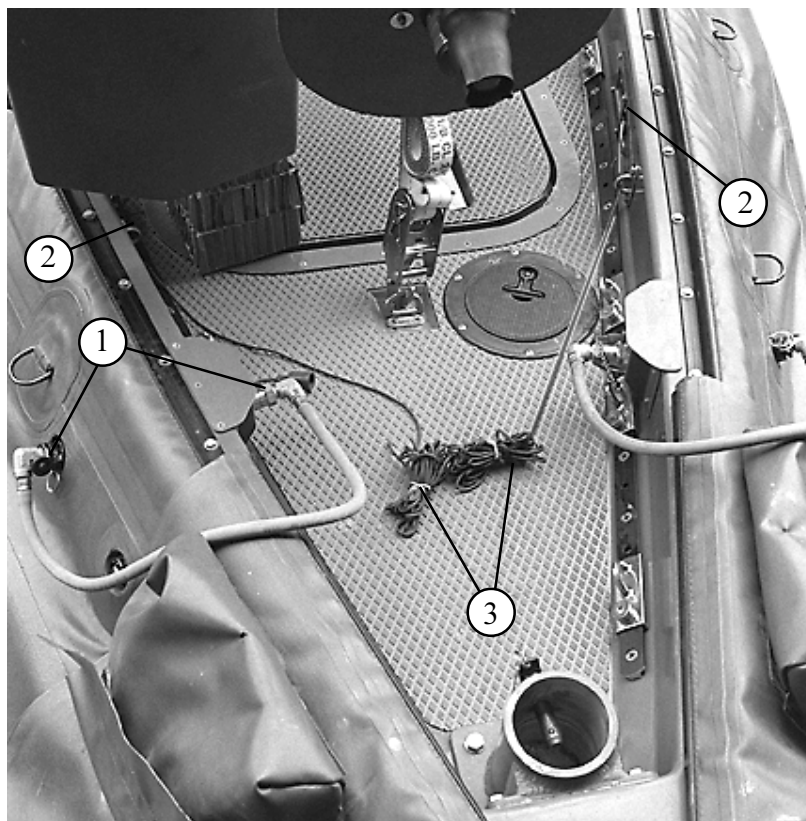


- ① Make a handle for each exhaust port cover with 1/2-inch tubular nylon. Tape the exhaust port covers in place.
- ② Tape the bottom edge of the deck drainage flap on each side of the transom.
- ③ Tape the bilge pump overboard discharge holes on each side of the transom.

*Figure 5-16. Discharge holes, drainage flaps, and exhaust port covers secured*

### 5-7. Preparing the Sponson Inflation System

Prepare the sponson inflation system as shown in Figure 5-17.

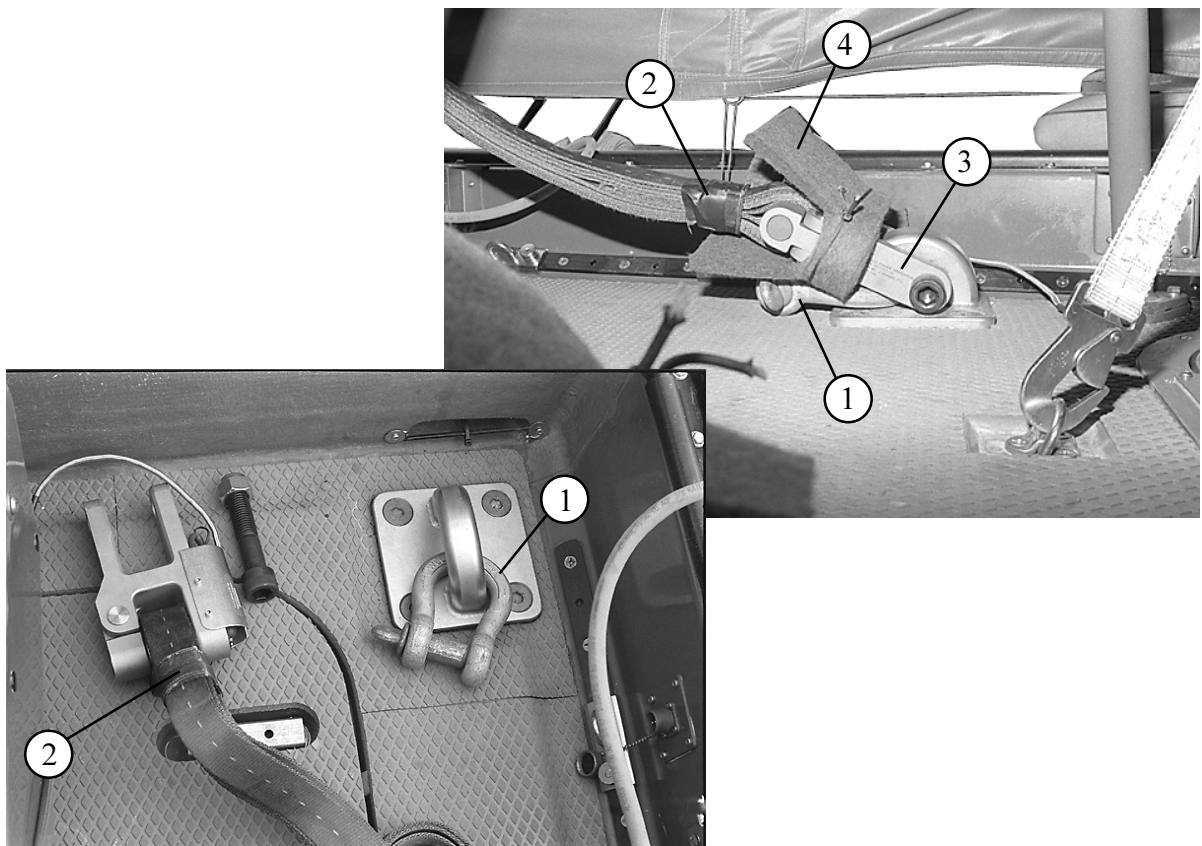


- ① Be sure all the hose connections for the sponson inflation system are tight.
- ② Remove the core threads from two 12-foot lengths of type III nylon cord. Pass one end of the cord through the tie-down ring and tie it to the sponson activation cable ring. Repeat for the other side of the boat.
- ③ Fold the excess cord and secure with retainer bands in the middle of the deck.

*Figure 5-17. Sponson inflation system connected*

## 5-8. Installing the Water-Activated Parachute Releases

Install the four water-activated parachute releases as shown in Figure 5-18.



- ① Place a shackle from the lift kit onto each suspension point, with the pin facing inboard to outboard as shown. These must be used for lifting the load, NOT for suspension.
- ② Attach a 20-foot, (4-loop), type XXVI nylon sling to the discharge end of each WAPR.
- ③ Attach the WAPR to the suspension point, with the red dust cap facing inboard. Be sure that the bolt faces inboard to outboard. Tighten the bolt wrench tight.
- ④ Wrap each WAPR with a 6- by 18-inch piece of felt. Secure the felt in place with type III nylon cord. Leave the discharge end of the release unwrapped. Do not allow the cord to restrict the movement of the discharge arm.
- ⑤ Attach the three remaining suspension slings as in steps 1 through 4 above.

Figure 5-18. Water-activated parachute releases installed

### 5-9. Installing the Boat Cover, Sponson Ties, and Sponson Covers

Install the boat cover as shown in Figure 5-19.  
Make the sponson ties as shown in Figure 5-20.

Install the aft sponson covers as shown in Figure 5-21.

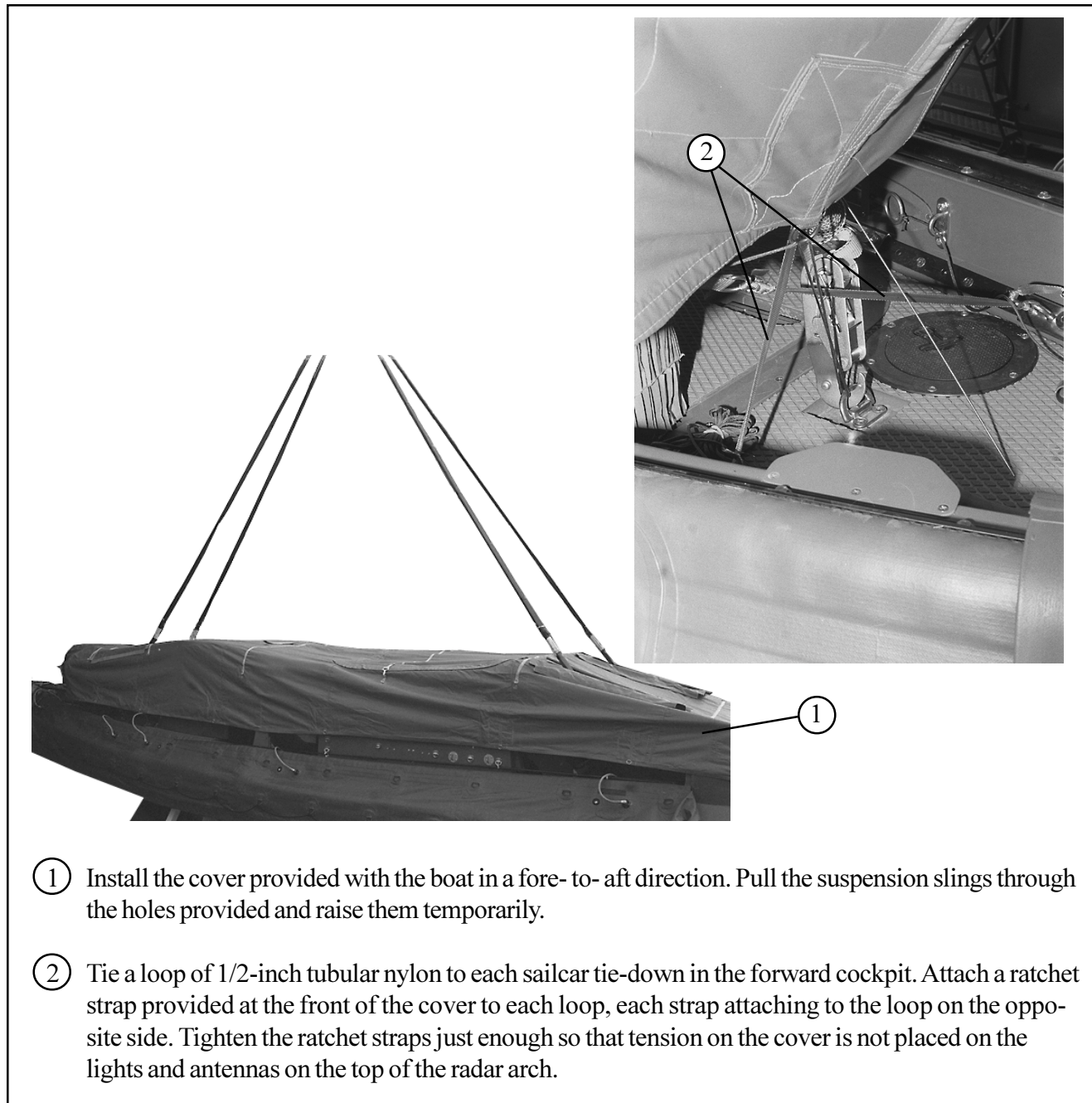
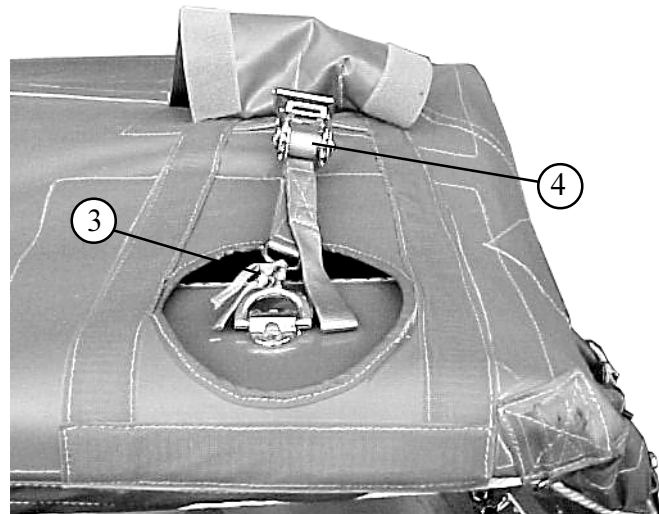
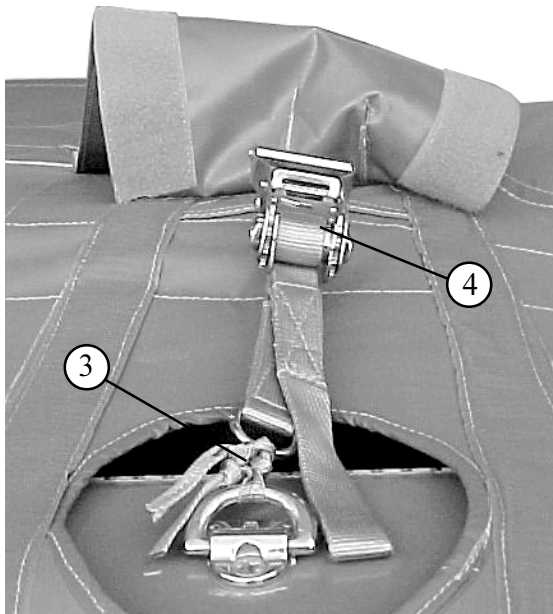


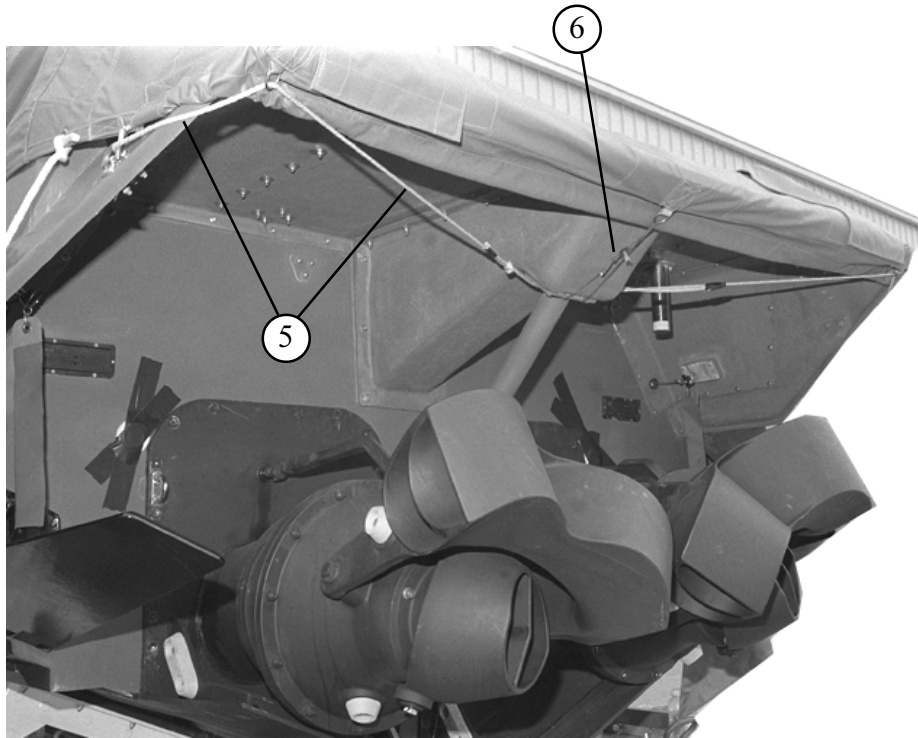
Figure 5-19. Boat cover installed





- ③ Secure the cover to the bustle of the boat through the two ports in the cover. Secure the end of each ratchet strap to the folding padeye with a loop of 1/2-inch tubular nylon webbing.
- ④ Adjust the ratchets to place tension on the cover.

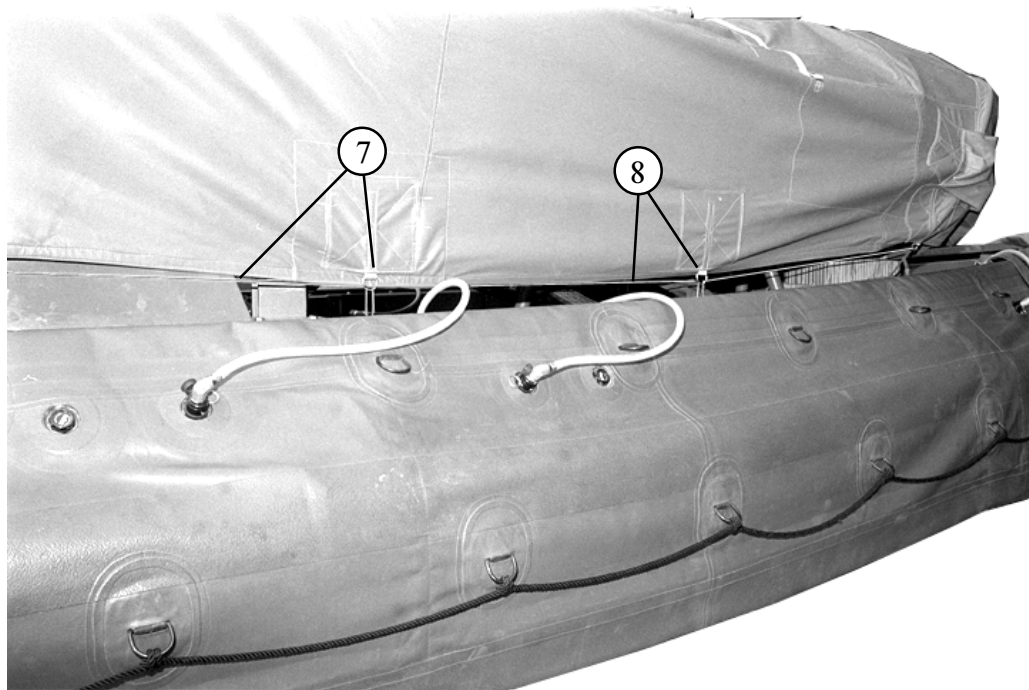
*Figure 5-19. Boat cover installed (continued)*



- ⑤ Tighten the bolt rope along the edges of the cover on both sides of the boat. Be sure that the cover extends below the edges of the bustle. Form a loop in each running end of the bolt rope.
- ⑥ Run a length of type III nylon cord through the D-rings on both sides of the bustle, and tie off, making a two-finger loop. Route another length of type III nylon cord through the looped ends of the bolt rope, drawing them together. Tie the type III nylon cord around the swim platform support bar and tie off to the center grommet on the boat cover.

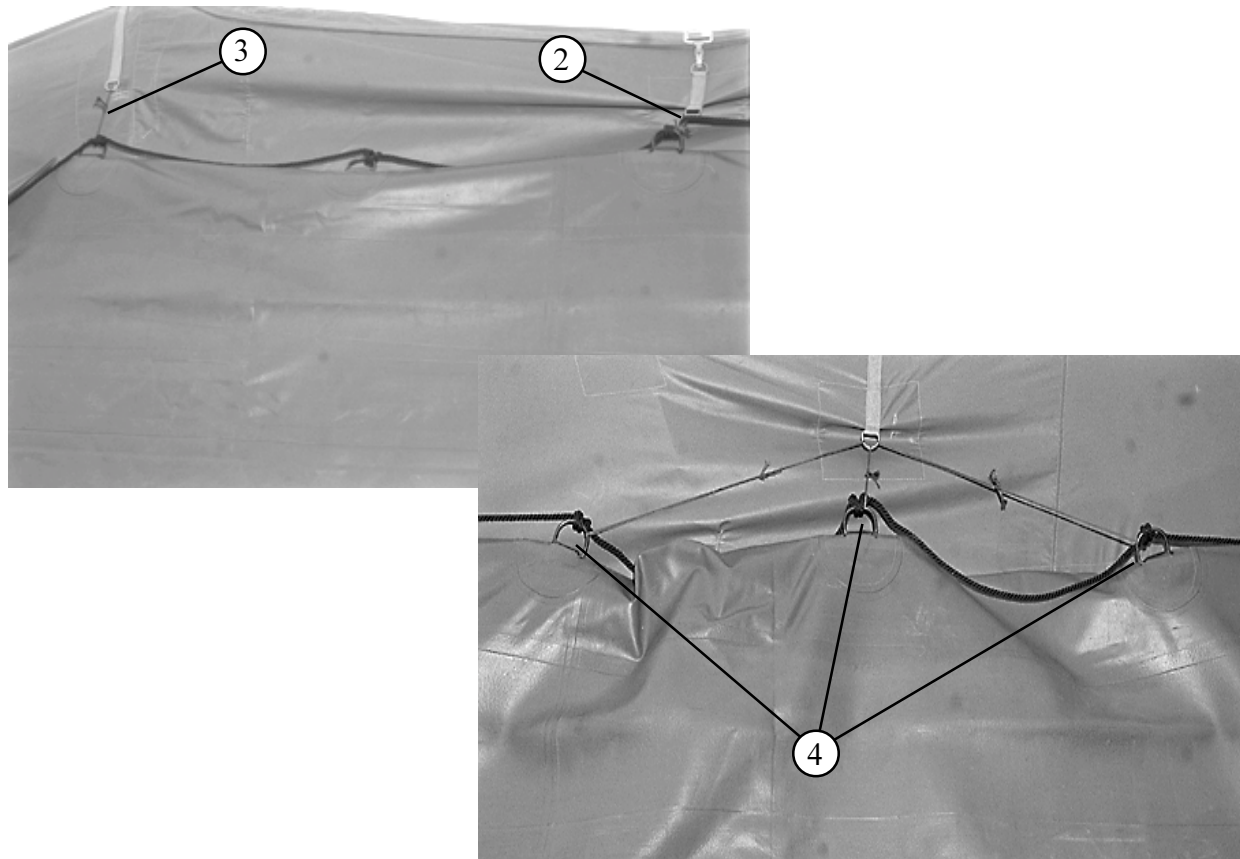
*Figure 5-19. Boat cover installed (continued)*





- ⑦ Cut a length of type III nylon cord long enough to encircle the entire boat cover. Beginning at the left rear sail car, route the cord up through the sewn D-ring on the cover, over through the next sewn D-ring, down through the tie-down ring or sail car, and up through the same sewn cover D-ring.
- ⑧ Repeat this pattern all around the cover, pull the cord taut, and tie it off to the right rear sail car.

*Figure 5-19. Boat cover installed (continued)*

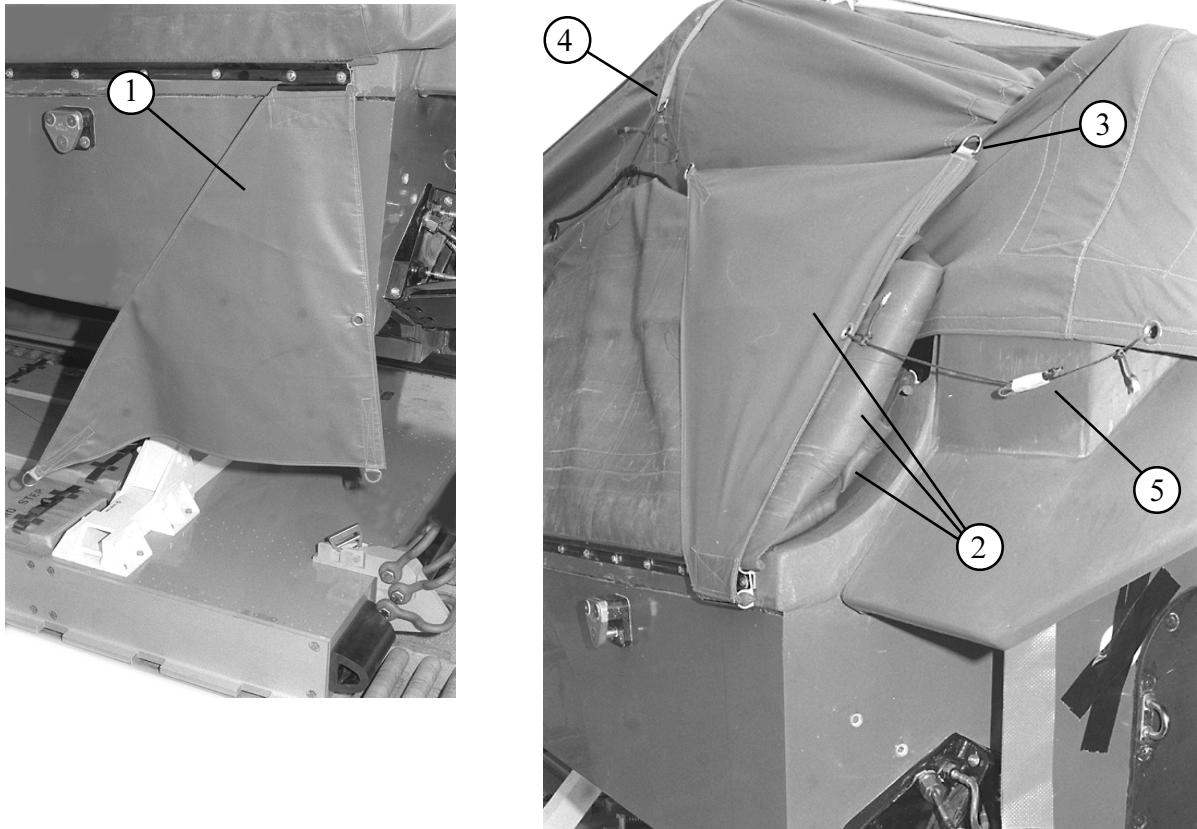


- ① Cut fourteen 6-foot lengths of type III nylon cord. Remove the core threads.
- ② Starting at the rear of the boat, route a length of type III nylon cord down through the sewn D-ring on the boat cover, and through the sewn D-ring on the sponson. Have assistants support the weight of the sponson while tying the cord around both D-rings.
- ③ Repeat step 2 with the next ring forward.
- ④ Tie a length of cord from the center sewn D-ring on the cover to the three D-rings immediately below on the sponson.

Note: Except for the center sewn cover D-ring, every other sponson D-ring should be tied.

- ⑤ Repeat step 2 on the next two cover D-rings, and repeat steps 1 through 4 on the other side.

*Figure 5-20. Sponsons tied*

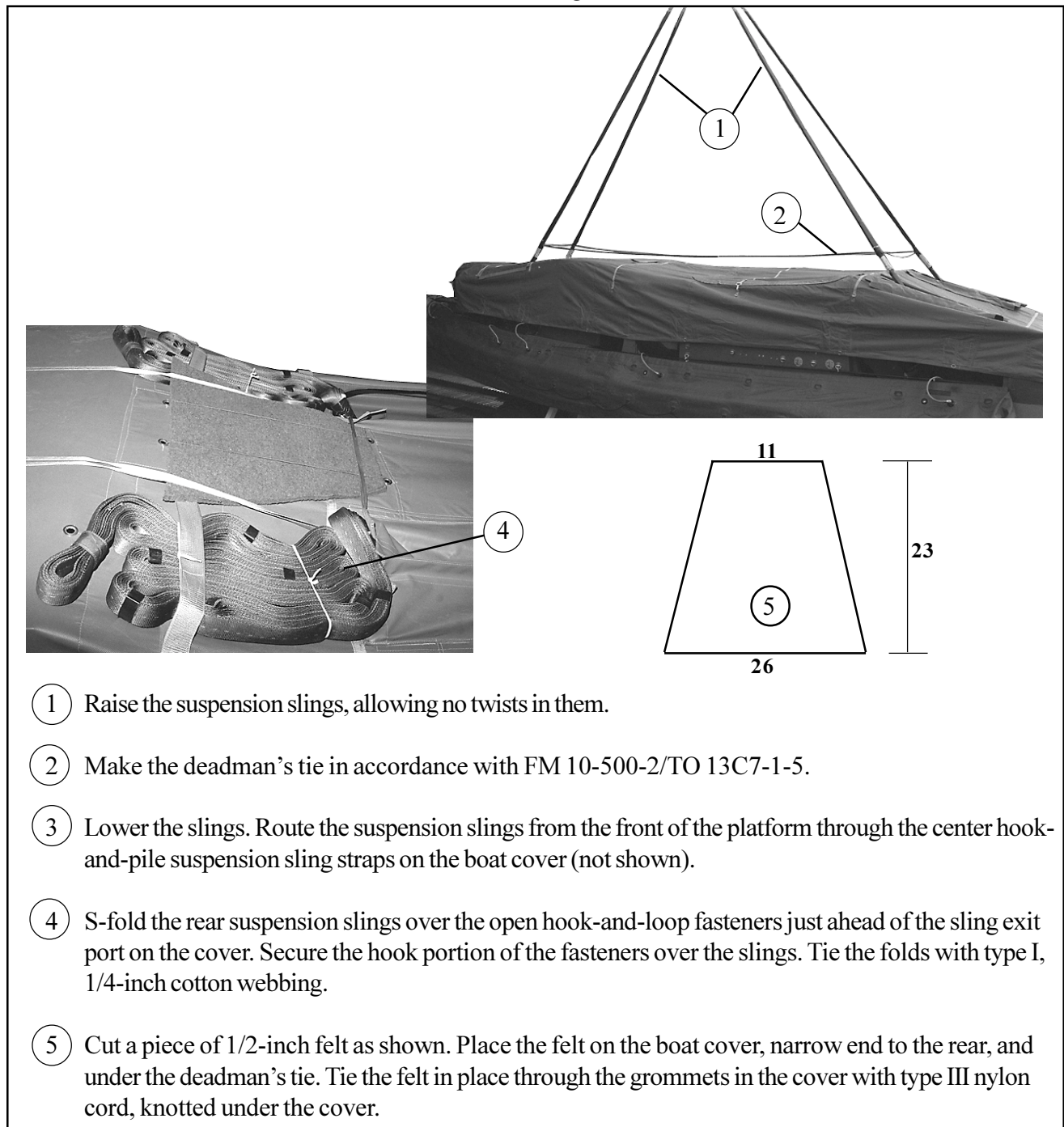


- ① Slide the small end of the aft sponson covers into the slots provided.
- ② Fold the rear of the sponson inward, and raise the sponson cover over the fold.
- ③ Pass a 36-inch length of type III nylon cord with the core threads removed through the D-ring on the right angle corner of the sponson cover, and through the rear sewn D-ring on the boat cover. Tie the running ends together.
- ④ Pass a 48-inch length of type III nylon cord with the core threads removed through the D-ring on the front corner of the sponson cover, and through the second sewn D-ring on the boat cover. Tie the running ends together.
- ⑤ Tie one end of a 60-inch length of type III nylon cord to the center grommet on the sponson cover, and the other end to the last grommet on the boat cover. S-fold the excess cord and tape the folds with masking tape.

*Figure 5-21. Aft sponson covers tied*

### 5-10. Preparing Suspension Slings

Raise and safety the suspension slings as shown in Figure 5-22.



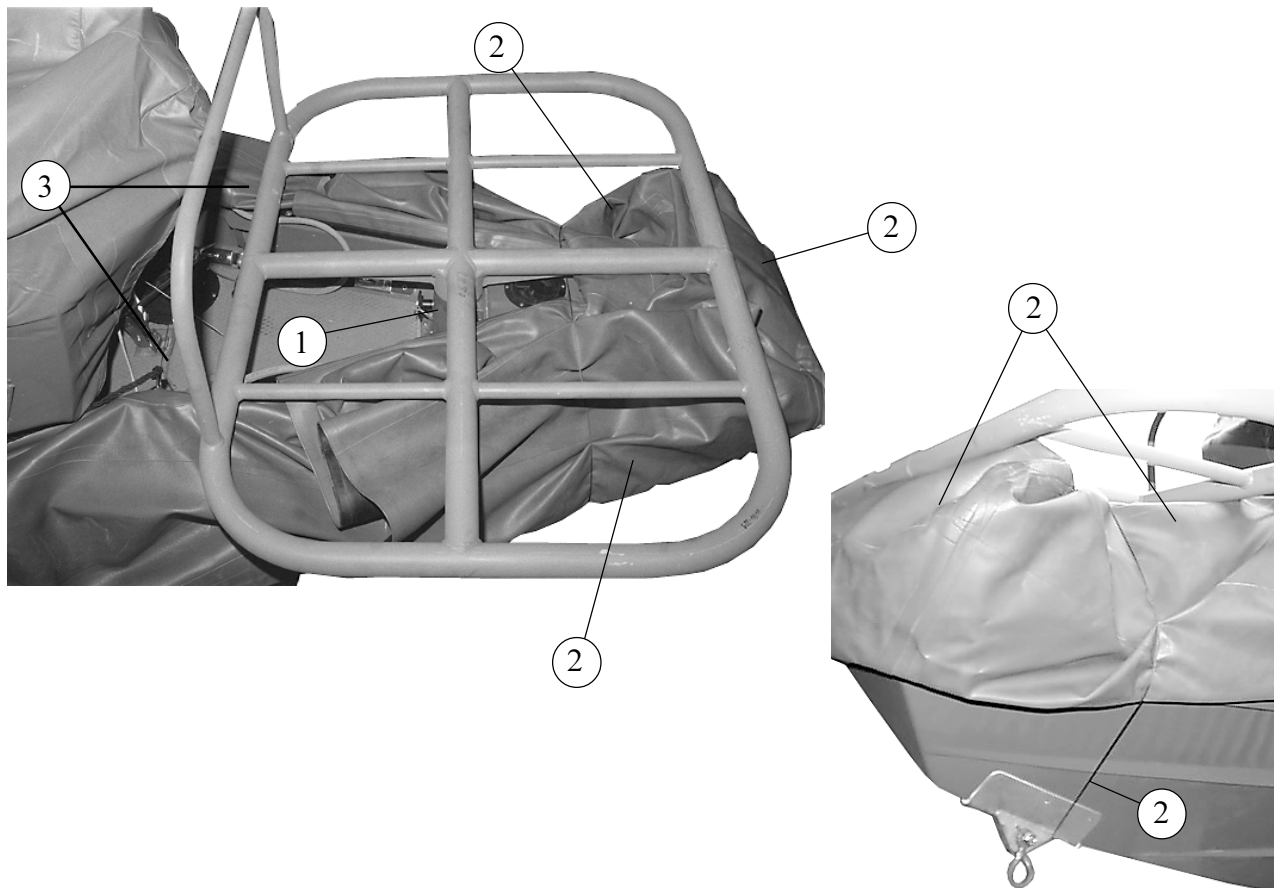
- ① Raise the suspension slings, allowing no twists in them.
- ② Make the deadman's tie in accordance with FM 10-500-2/TO 13C7-1-5.
- ③ Lower the slings. Route the suspension slings from the front of the platform through the center hook-and-pile suspension sling straps on the boat cover (not shown).
- ④ S-fold the rear suspension slings over the open hook-and-loop fasteners just ahead of the sling exit port on the cover. Secure the hook portion of the fasteners over the slings. Tie the folds with type I, 1/4-inch cotton webbing.
- ⑤ Cut a piece of 1/2-inch felt as shown. Place the felt on the boat cover, narrow end to the rear, and under the deadman's tie. Tie the felt in place through the grommets in the cover with type III nylon cord, knotted under the cover.

Figure 5-22. Suspension slings safetied and stowed



### 5-11. Installing Parachute Stowage Platform

Tie the front sponsons, and install the parachute stowage platform as shown in Figure 5-23.

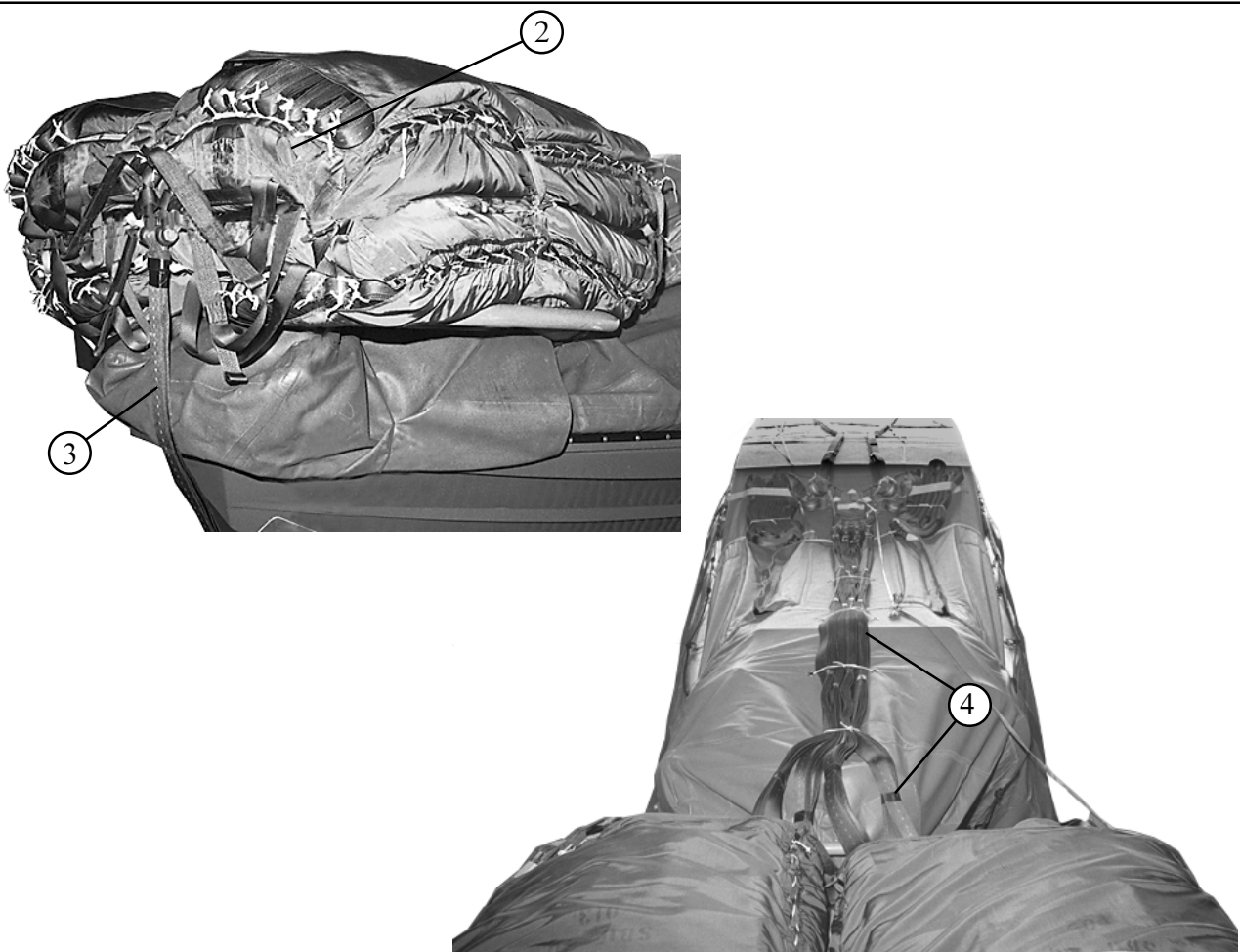


- ① Insert the post of the parachute stowage platform into the king post base. Use the push-pull pin for the king post base to secure the stowage platform in place.
- ② Fold the bow sponson tube under the stowage platform, folding the front flap first, then the two sides. Tie a length of type III nylon cord, with the core threads removed, around the sponsons and the hull of the boat behind the towing pad eye.
- ③ Tie the D-rings on the front sponsons together with a length of type III nylon cord with the core threads removed.

*Figure 5-23. Front sponsons folded and parachute stowage platform installed*

### 5-12. Installing Cargo Parachutes

Install four G-11 cargo parachutes according to FM 10-500-2/ TO 13C7-1-5, and as shown in Figure 5-24.



- ① Attach and stow a 60-foot (3-loop), type XXVI riser extension to each of four G-11B cargo parachutes according to FM 10-500-2/TO 13C7-1-5.
- ② Cluster the parachutes on the parachute stowage platform.
- ③ Attach a 16-foot (2-loop), type XXVI deployment line to the deployment clevis.
- ④ Pull enough of the riser extensions from each parachute to reach the release.

*Figure 5-24. Cargo parachutes installed*



### 5-13. Installing M-2 Cargo Parachute Release

Prepare and install an M-2 cargo parachute release according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 5-25.

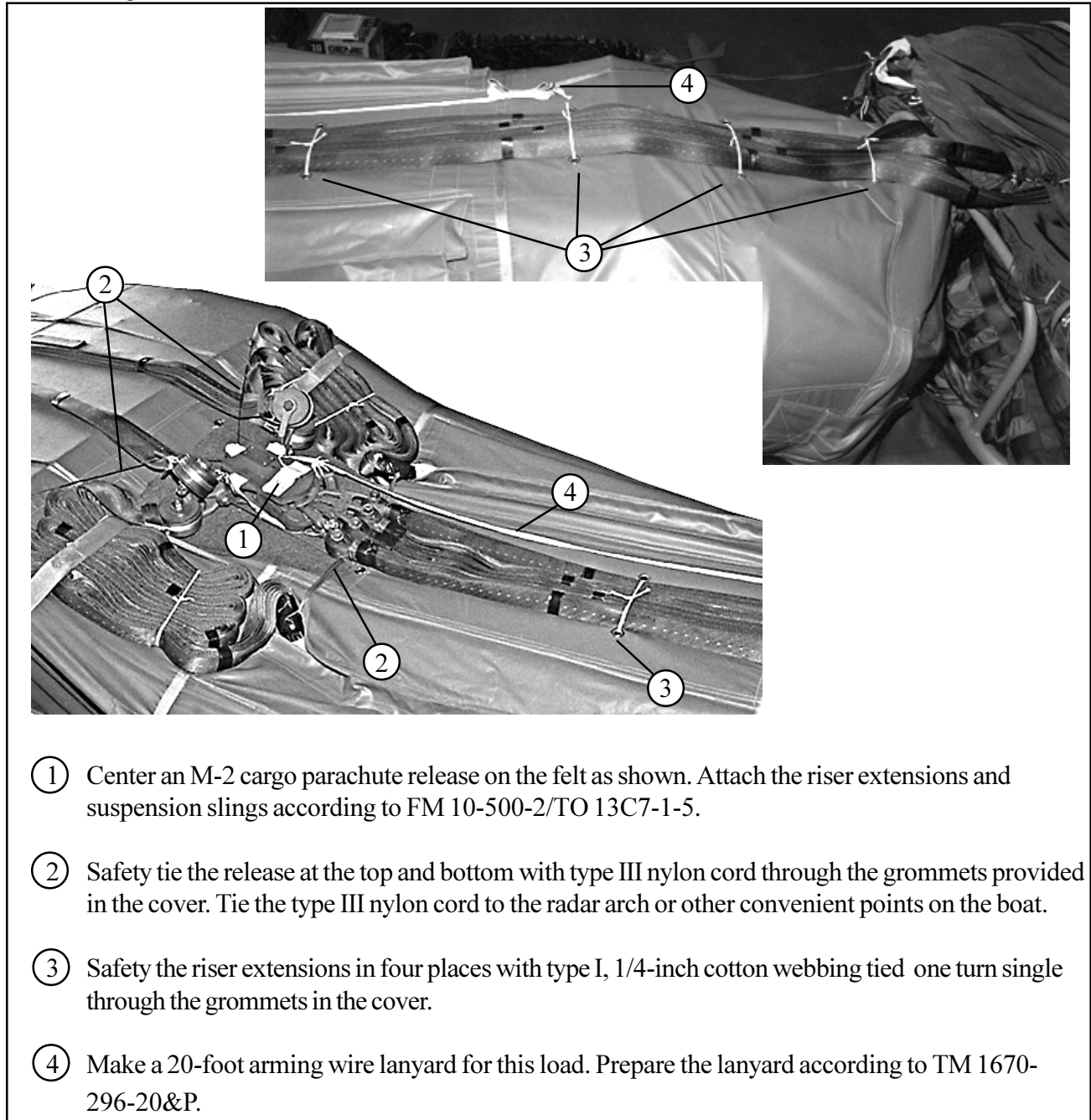
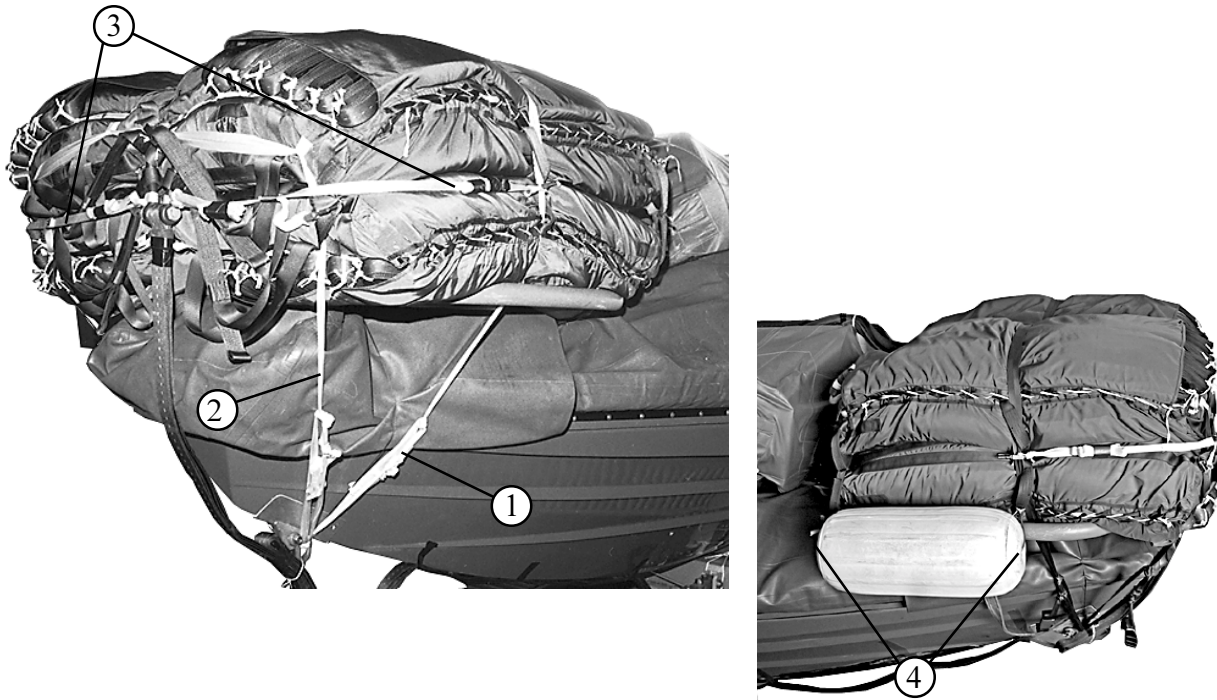


Figure 5-25. M-2 cargo parachute release installed

### 5-14. Installing Parachute Restraints

Restrain the cargo parachutes according to FM 10-500-2/TO 13C7-1-5, and as shown in Figure 5-26.

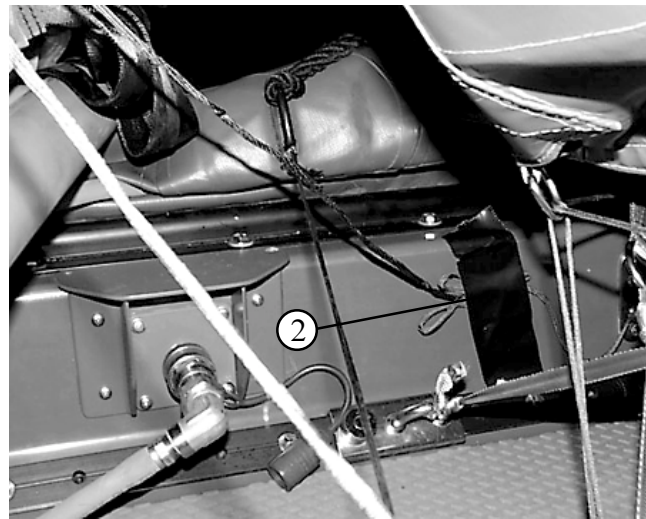
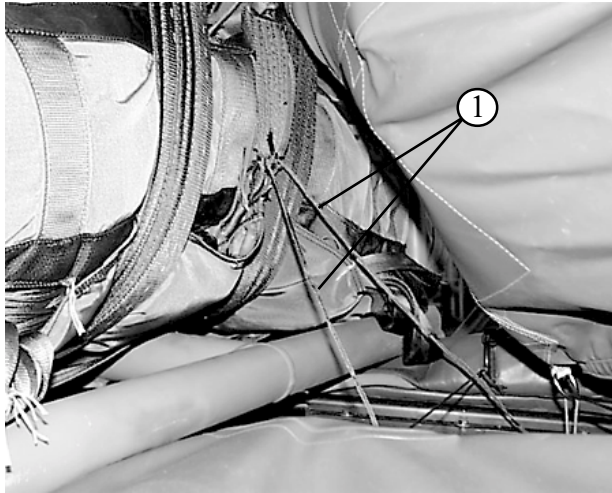


- ① Route the center parachute restraint strap down inside the outer bars of the parachute stowage platform. Route the right side through the towing pad eye. Tightening both sides simultaneously, tie with a trucker's hitch, secured with three alternating half hitches and an overhand knot in the running end. S-fold any excess and secure with tape.
- ② Route the rear parachute restraint strap down the outside of the outer bars of the parachute stowage platform. Route the right side through the towing pad eye. Tightening both sides simultaneously, tie with a trucker's hitch, secured with three alternating half hitches and an overhand knot in the running end. S-fold any excess and secure with tape.
- ③ Install two multi-cut release straps according to FM 10-500-2/TO 13C7-1-5.
- ④ Tie a flotation device to the carrying handles of the lower deployment bag on each side with 1/2-inch tubular nylon webbing.

*Figure 5-26. Cargo parachutes restrained*

### 5-15. Installing Sponson Activation Lanyard

Install the sponson activation lanyard as shown in Figure 5-27.

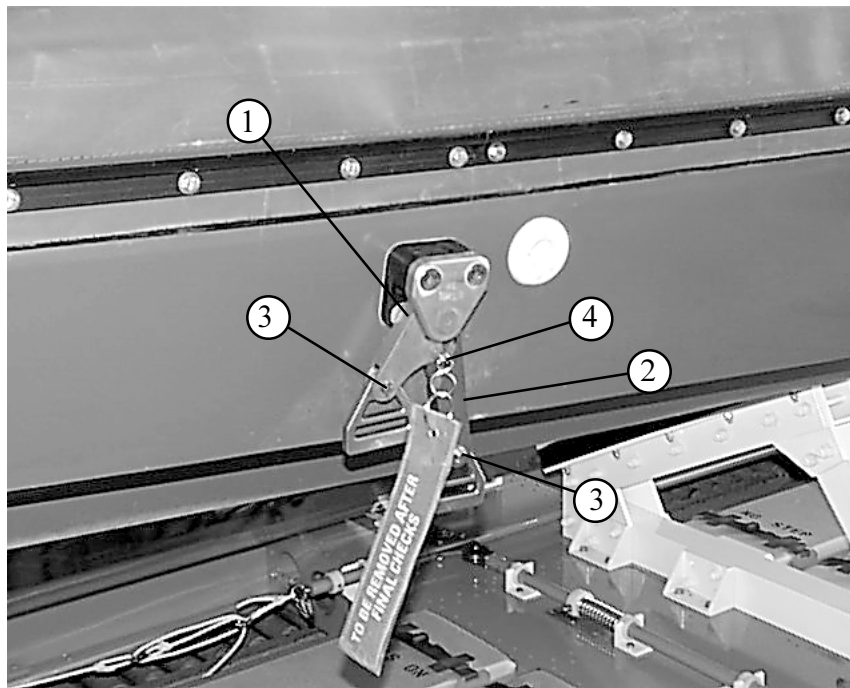


- ① Pass the sponson inflation lanyards installed in Figure 5-17 of this manual over all items. Tie each lanyard to the bottom carrying handle of the nearest G-11 parachute with three alternating half hitches and an overhand knot in the running end.
- ② S-fold excess lanyard, taping each lanyard to the gunwale on its side.

*Figure 5-27. Sponson activation lanyard installed*

### 5-16. Preparing and Testing the NSW RIB Restraint System

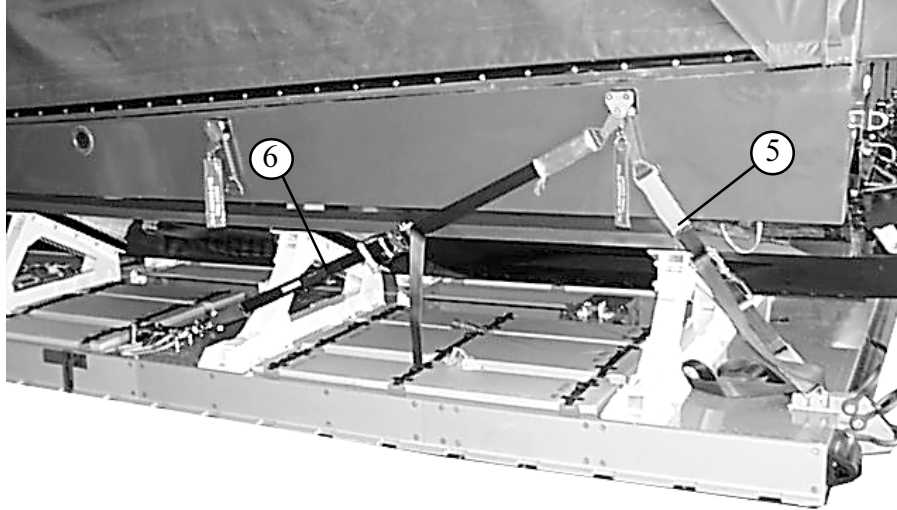
Prepare the restraint system as shown in Figures 5-28. Prepare the restraint system for test fire as shown in Figure 5-29. Test fire the system as shown in Figure 5-30.



- ① Install a release caliper assembly on each of the boat restraint provisions (four on each side).
- ② Be sure that the long arm faces the stern of the boat.
- ③ Be sure that the cotter pin on each arm faces outward.
- ④ Secure each caliper assembly in place with the pin provided.

*Figure 5-28. Restraint system prepared*





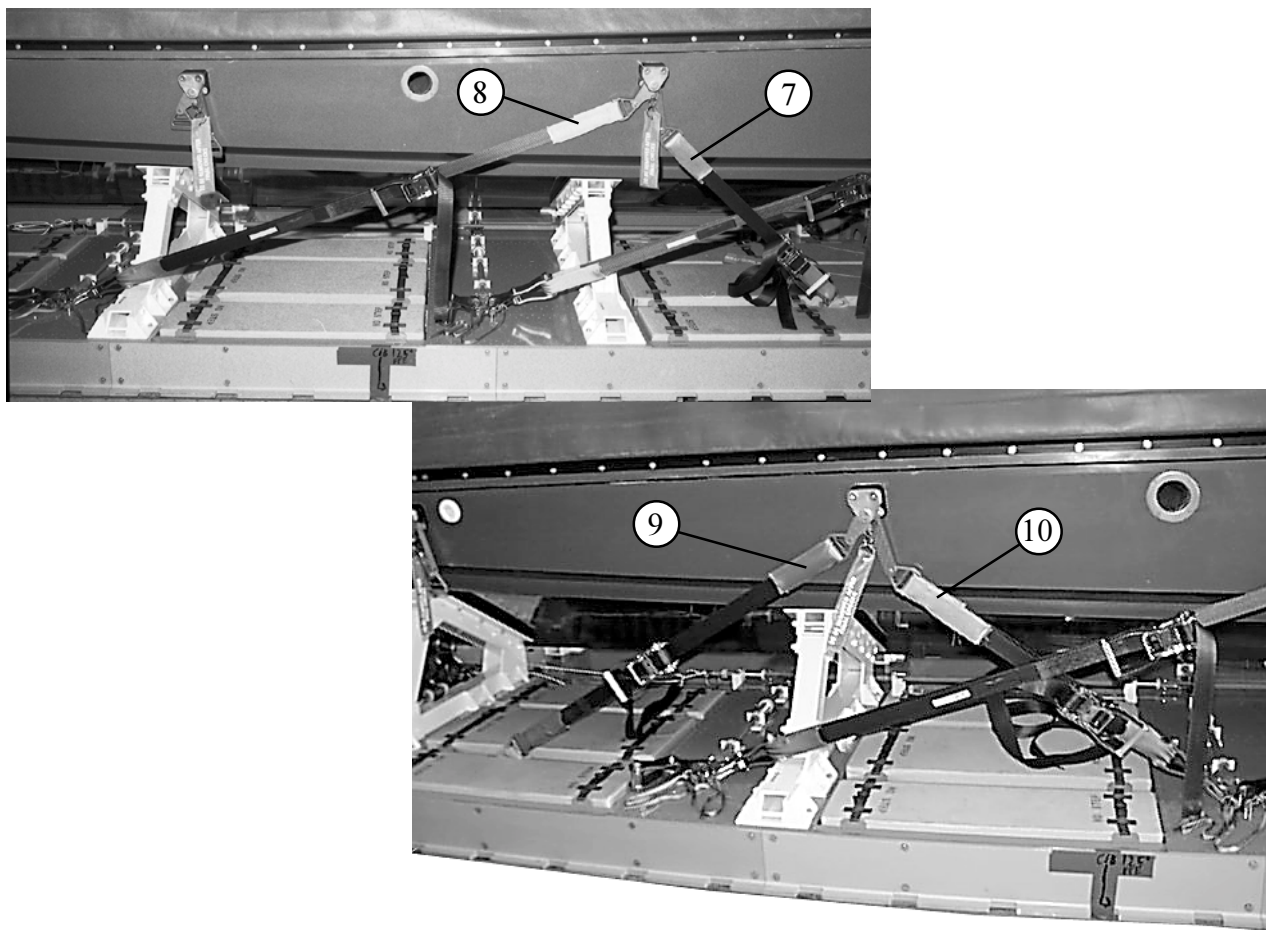
- ⑤ With the ratchet handle facing outboard, pass a lashing through the link on the emergency aft restraint bracket, and up through the long arm of the caliper release unit. Connect the lashing at the ratchet.
- ⑥ From outboard, pass the free end of the second lashing through the large diameter pin of the 1/2-inch shackle fitted to the scissor release unit. Pass the free end upward and inboard through the short arm of the caliper release unit. Connect the lashing at the ratchet.

**Notes:**

- 1. Allow no twists in these lashings.**
- 2. Be sure that the protective sleeves on the lashings are positioned to protect them from metal contact.**
- 3. Do not tighten the lashings until all are installed.**

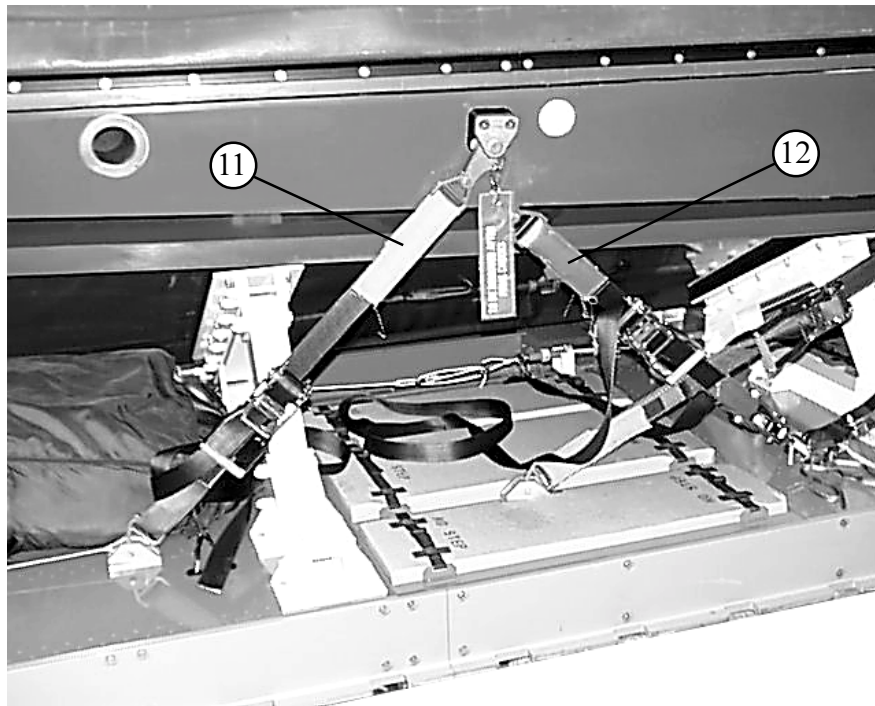
*Figure 5-28. Restraint system prepared (continued)*





- ⑦ With the ratchet handle facing outward, pass a lashing through the link between the first and second row of flotation devices, and up through the long arm of the caliper release unit. Connect the lashing at the ratchet.
- ⑧ From outboard, pass the free end of another lashing through the large-diameter pin of the 1/2-inch shackle fitted to the second scissor release unit. Pass the free end upward and inboard through the short arm of the caliper release unit. Connect the lashing at the ratchet.
- ⑨ With the ratchet handle facing outward, pass a lashing through the link between the first and second row of flotation devices, and up through the short arm of the caliper release unit. Connect the lashing at the ratchet.
- ⑩ From outboard, pass the free end of another lashing through the large-diameter pin of the 1/2-inch shackle fitted to the first scissor release unit. Pass the free end upward and inboard through the long arm of the caliper release unit. Connect the lashing at the ratchet.

Figure 5-28. Restraint system prepared (continued)

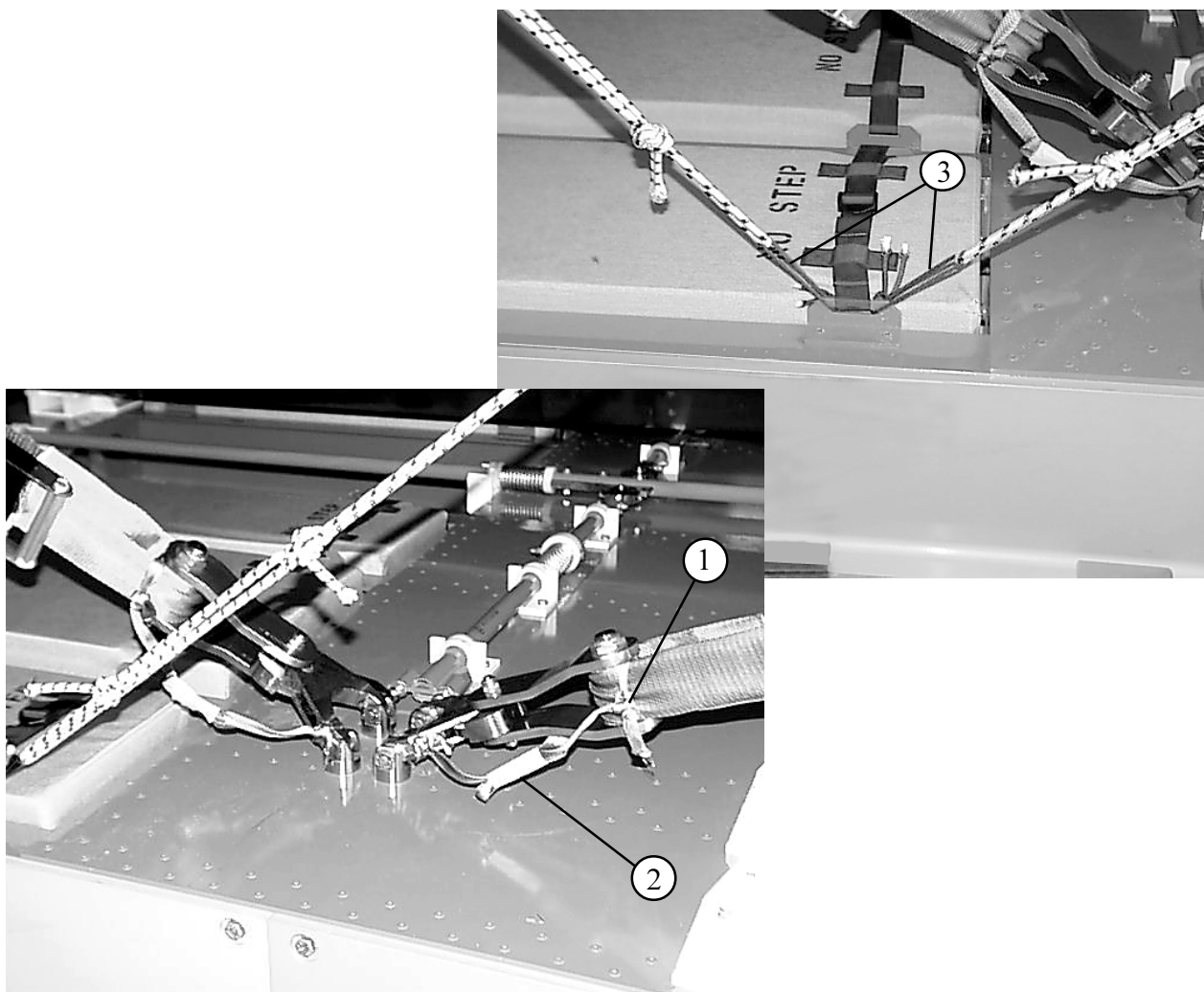


- ⑪ With the ratchet handle facing outward, pass a lashing through the rearmost link, and up through the short arm of the caliper release unit. Connect the lashing at the ratchet.
- ⑫ From outboard, pass the free end of another lashing through the large-diameter pin of the 1/2-inch shackle fitted to the second scissor release unit. Pass the free end upward and inboard through the long arm of the caliper release unit. Connect the lashing at the ratchet.
- ⑬ Repeat steps 1 through 12 for the starboard side of the boat.

**Notes:**

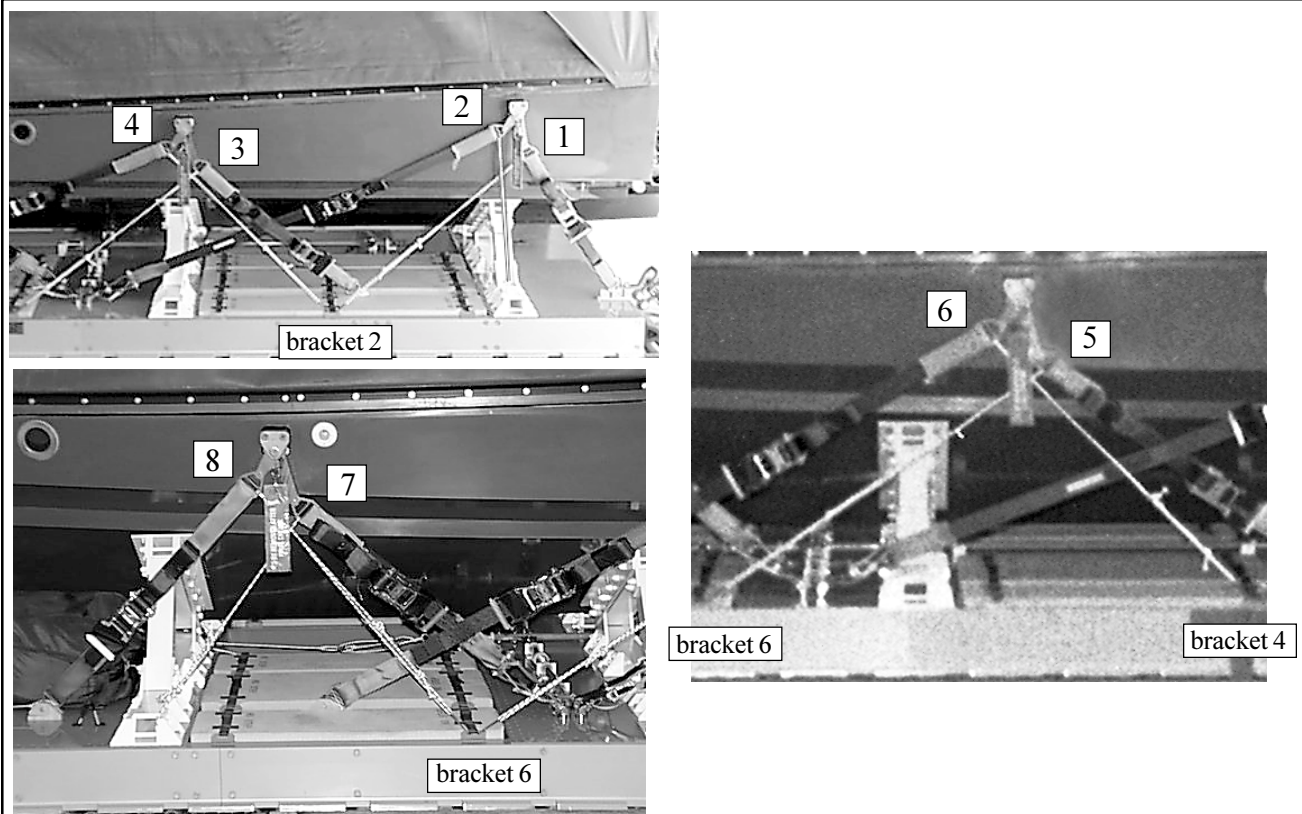
- 1. Starting at the stern, tighten the lashings simultaneously on the port and starboard sides. Tighten no more than hand tight.**
- 2. Proper tension is applied to a pair of lashings attached to each caliper release assembly when the pin can be withdrawn and re-inserted easily.**
- 3. Do not secure excess lashing until test-firing is completed.**

*Figure 5-28. Restraint system prepared (continued)*



- ① Tie the running ends of the 1/2-inch tubular nylon webbing placed in Figure 5-7, step 4 to each lashing, just above the shackle, being sure that 17 inches of nylon remains from knot to knot.
- ② S-fold and tape the excess.
- ③ Cut twelve 24-inch lengths of type III nylon cord. Locate flotation device securing brackets 2, 4, and 6 (counting from the front of the platform). Tie two 2-inch loops of cord in each bracket, on either side of the flotation device retaining strap. Be sure the knots are on the inboard side of the brackets. Tie overhand knots in each running end, and trim off the excess.

*Figure 5-29. Restraint system prepared for test-fire*

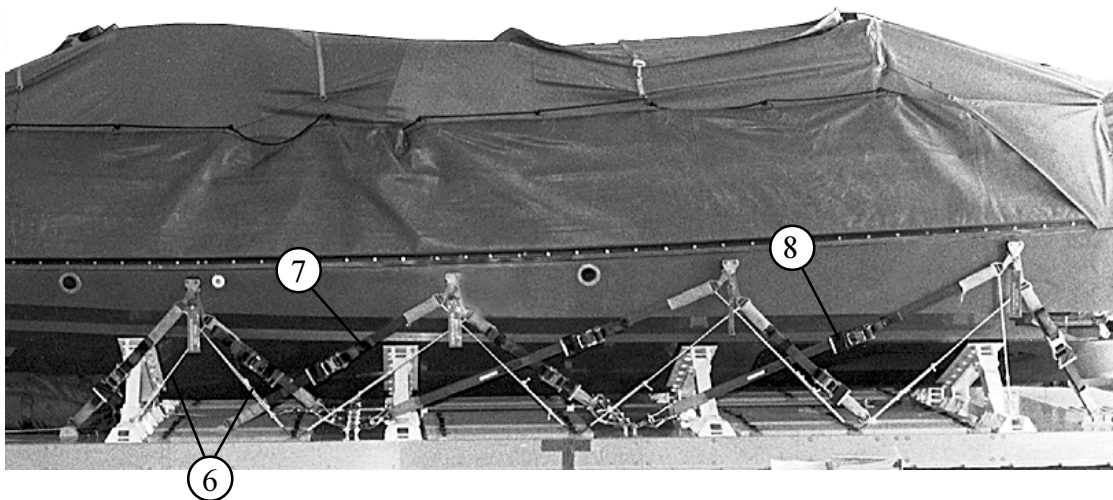


- ④ The lashing provision at the end of each of the 16 caliper release legs will have a length of shock cord tied to a specific point on the platform with a trucker’s hitch. Tie the knot so that it can easily be retied between tests. Number the lashing points on each side from 1 through 8, beginning at the front of the platform. See the chart below for the specific points on the platform to which each cord is tied.

Lashing Provision Number	Tie-down Point on Platform
1	first loop on bracket 2
2	bolt at base of first stanchion
3	first loop on bracket 4
4	second loop on bracket 2
5	first loop on bracket 6
6	second loop on bracket 4
7	bolt at base of fourth stanchion
8	second loop on bracket 6

Figure 5-29. Restraint system prepared for test-fire (continued)





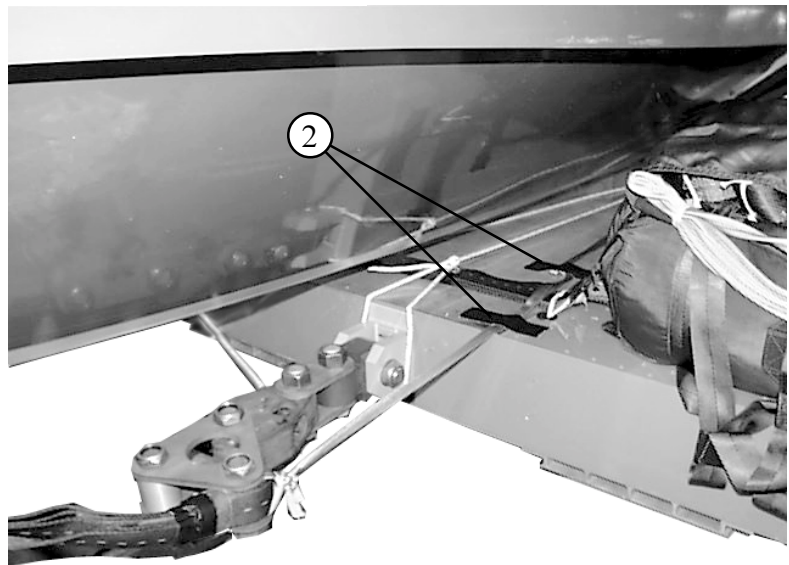
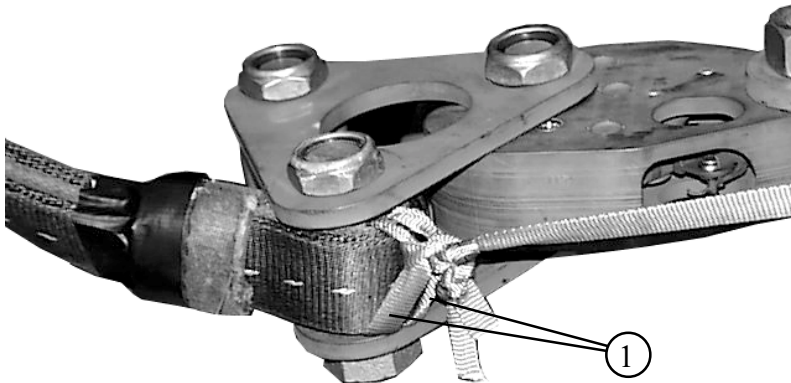
- ① Place honeycomb under each set of caliper releases to protect the platform components from damage. Be sure that the honeycomb does not interfere with the scissor release units.(not shown)
- ② Be sure that the push rod cable is disconnected from the halyard shackle before testing the system (See Figure 5-6).
- ③ Remove all eight safety pins from the caliper releases. Exert enough force on the pulley rope to allow the push rod T-pin to be removed. Releasing the rope test fires the caliper releases. All caliper releases should release the lashings simultaneously (not shown).
- ④ Repeat the steps in Figures 28 and 29 to reset the system for the next test fire. Test fire as explained in steps 1 through 3 above.
- ⑤ Repeat step 4 for the third test fire.
- ⑥ Reset the restraint system for airdrop as in the previous steps. Secure the shock cord with three alternating half-hitches and overhand knots in the running ends. Trim off and tape the ends.
- ⑦ Roll under excess lashing and tape it to the outboard ply (not to both plies).
- ⑧ Ensure all ratchet handles are locked in the closed position. Tape around the handle to the outboard ply of the lashing (not to both plies).
- ⑨ Attach the wire cable connected to the drawbar to the locking halyard shackle, and be sure the shackle is in the locked position (not shown).

*Figure 5-30. Caliper releases test-fired and reset*



### 5-17. Connecting M-21 Cutter Arming Wire Lanyards

Connect the M-21 cutter arming wire lanyards to the deployment line as shown in Figure 5-31.

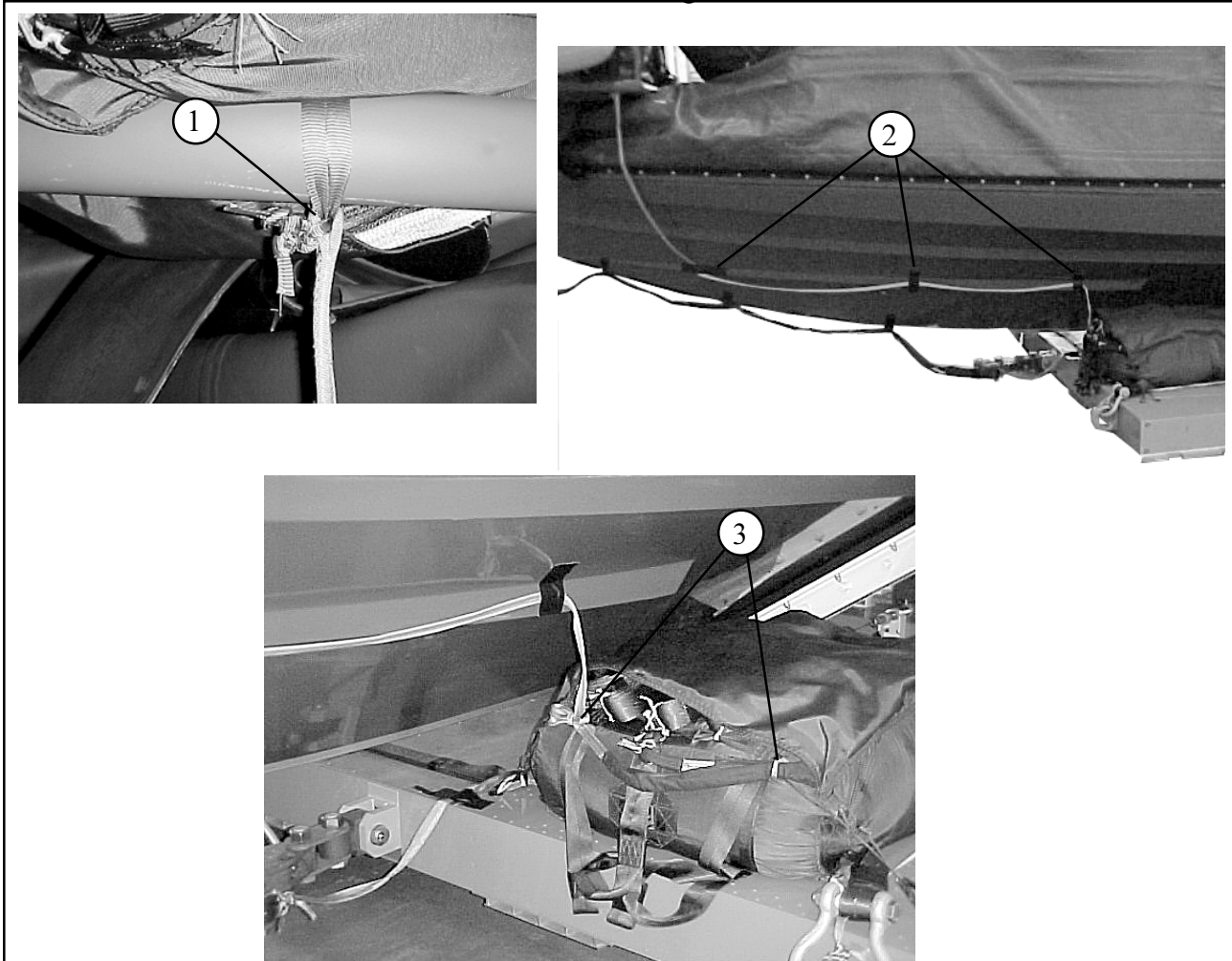


- ① Tie the running end of both cutter arming wire lanyards installed in Figure 5-6 to all plies (including the cotton buffer) of the 16-foot deployment line. Make these ties 60 inches from the top of the cutter cable tie.
- ② S-fold the excess 1/2-inch tubular nylon and tape it to the platform deck in two places.

*Figure 5-31. M-21 cutter arming wire lanyards tied to deployment line*

### 5-18. Securing G-12E Static Line

Tie and tape the G-12E static line as shown in Figure 5-32.



- ① Tie the G-12E parachute static line to the outer bar of the parachute stowage platform with two turns single of 1/2-inch tubular nylon, tied in a surgeon's knot, locking knot, and overhand knots in the running ends. Tie the knot over the static line.
- ② Run the static line down to the bottom horizontal rib on the boat hull. Run the line along the rib, taping it in several places with cloth-backed adhesive tape.
- ③ Secure any excess static line to the G-12E deployment bag with retainer bands.

*Figure 5-32. G-12E static line secured*

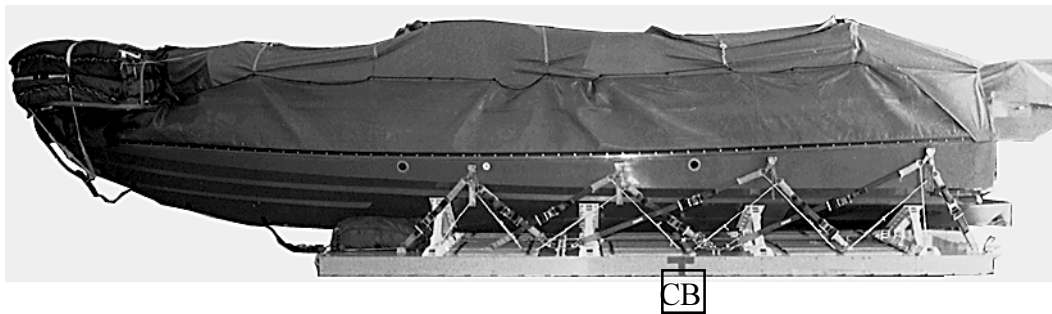
**5-19. Placing Extraction Parachutes**

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

**5-20. Marking the Rigged Load**

Mark the rigged load according to FM 10-500-2/TO 13C7-1-5. Complete the Shipper’s Declaration for Dangerous Goods.

**Make the final rigger inspection and all other inspections specified in this manual before the load leaves the rigging site.**



**Rigged Load Data**

Weight: Load shown	18,500 pounds
Maximum	20,640 pounds
Height	100 inches
Width	108 inches
Length	432 inches
Overhang: Front	42 inches
Rear	138 inches
CB (maximum distance allowable from the front edge of the platform)	49 inches
Extraction System	EFTC

*Figure 5-33. NSW RIB rigged for low-velocity airdrop*

## 5-21. Equipment Required

Use the equipment listed in Table 5-1 to rig this load.

**Table 5-1. Equipment required for rigging NSW RIB for low-velocity airdrop**

National Stock Number	Item	Quantity
8040-00-273-8713	Adhesive paste, 1-gal	As required
1670-00-568-0323	Band, rubber, parachute	As required
4030-00-090-5354	Clevis, suspension, 1-in (large)	5
4030-00-678-8562	3/4-in, medium	2
8305-00-926-1559	Cloth, muslin, type II, 36-in	As required
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
8305-00-267-3114	Cord, elastic, .375, nat, type I	As required
1670-01-423-4103	Coupling, airdrop, extraction force transfer with cable, 24ft	1
1670-00-360-0328	Cover: Clevis, large	1
1377-00-060-0885	Cutter, cartridge actuated, M-21	2
8305-00-958-3685	Felt, sheet, 1/2-in	As required
5340-00-040-8219	Knife, multi para release, strap, webbing	2
1670-01-183-2678	Leaf, extraction line (line bag)	2
1670-01-064-4452	Line, drogue (for C-17) 60-ft (1-loop), type XXVI	1
1670-01-062-6313	Line, extraction For C-130: 60-ft (3-loop), type XXVI	1
1670-01-107-7651	For C-141: 140-ft (3-loop), type XXVI	1
1670-01-107-7651	For C-5: 140-ft (3-loop), type XXVI	1
1670-01-107-7651	For C-17: 140-ft (3-loop), type XXVI	1
5306-00-435-8994	Link assembly: Two-point, 3 3/4-in Bolt, 1-in diam, 4 in long	1 (2)
5310-00-232-5165	Nut, 1-in, hexagonal	(2)
1670-00-003-1953	Plate, side, 3 3/4	(2)
5365-00-007-3414	Spacer, large	(2)
5306-00-435-8994	Two-point, 5 1/2-in Bolt, 1-in diam, 4 in long	1 (2)
5310-00-232-5165	Nut, 1-in, hexagonal	(2)
1670-00-003-1954	Plate, side, 5 1/2	(2)
5365-00-007-3414	Spacer, large	(2)

**Table 5-1. Equipment required for rigging NSW RIB for low-velocity airdrop (continued)**

National Stock Number	Item	Quantity
1670-00-753-3928	Pad, energy-dissipating, honeycomb, 3- by 36- by 96-in	4 sheets
8135-00-160-7759	Paper, kraft, untreated	As required
	Parachute:	
1670-01-016-7841	Cargo, G-11B	4
1670-01-065-3755	Cargo, G-12E	1
1670-00-040-8135	Cargo extraction, 28-ft	1
1670-01-063-3715	Drogue, 15-ft (for C-17)	1
No NSN	Platform, 21-ft, Maritime Aerial Delivery System	1
5530-00-128-4981	Plywood, 3/4- by 48- by 96-in	1 sheet
1670-01-097-8817	Release, cargo parachute, M-2	1
No NSN	Release, cargo, parachute, Conax, water-activated	5
	Sling, cargo airdrop	
	For suspension:	
1670-01-064-4453	20-ft (4-loop), type XXVI nylon webbing	4
	For deployment:	
1670-01-063-7761	16-ft (2-loop), type XXVI nylon webbing	1
	For riser extension:	
1670-01-062-6313	60-ft (3-loop), type XXVI nylon webbing	4
7510-00-266-5016	Tape, adhesive, 2-in	As required
7510-00-266-6712	Tape, adhesive, masking	As required
	Thread,	
8310-01-279-6073	Cotton, ticket# 8/4, orange	As required
8310-00-917-3945	Cotton, ticket #8/7, natural	As required
1670-00-725-1437	Tie-down , cargo, aircraft, CGU-1/B	4
5310-00-057-3463	Washer, flat, 3/4-in	50
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required
8305-00-268-2455	Nylon, tubular, 1-in	As required
8305-00-261-8585	Type VIII	As required



## **Appendix B. Before-loading, After-loading, and Pre-drop Checks**

### **Before loading the NSW RIB onto the aircraft:**

1. Ensure all WAPR's are plugged in and inspected.
2. Remove any tape from the WAPR sensors on the hull.
3. Ensure that the sponson-inflation high-pressure bottles are turned ON and that they are full.
4. Ensure the the JAI has been completed.
5. Push the platform off the K-loader enough to install the drop arm. Safety the drop arm in place with the pin provided, and push the load back onto the K-loader. Tie the drop arm with the 1/2-inch tubular nylon webbing installed in Figure 5-8.

### **After loading the NSW RIB onto the aircraft:**

1. Remove the drawbar safety pin once the load is locked into position.
2. Remove the drop arm safety pin and rest the drawbar on the aircraft deck.
3. Remove the EFTC actuator arm safety pin and stow it from inboard to outboard on the actuator cover.
4. Rig the extraction line, line bag, and extraction parachute.
5. Remove the two M-21 cutter safety pins.

<b>GLOSSARY</b>
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<b>AFB</b>	Air Force base	<b>lb</b>	pound
<b>AFJMAN</b>	Air Force Joint Manual	<b>LPU</b>	life preserver, underarm
<b>AFR</b>	Air Force regulation	<b>LV</b>	low-velocity
<b>AFTO</b>	Air Force technical order	<b>MADS</b>	Maritime Aerial Delivery System
<b>ALC</b>	Airlift Logistics Center	<b>MARS</b>	military amphibious reconnaissance system
<b>AMC</b>	Air Mobility Command	<b>mm</b>	millimeter
<b>ARNG</b>	Army National Guard	<b>MOST</b>	Mobile Over Snow Transport
<b>attn</b>	attention	<b>no</b>	number
<b>C</b>	change	<b>NSN</b>	national stock number
<b>CB</b>	center of balance	<b>NSW RIB</b>	Naval Special Warfare Rigid Inflatable Boat
<b>d</b>	penny	<b>psig</b>	pounds per square inch gauge
<b>DA</b>	Department of the Army	<b>qty</b>	quantity
<b>DC</b>	District of Columbia	<b>rqr</b>	requirement
<b>DD</b>	Department of Defense	<b>sec</b>	second
<b>diam</b>	diameter	<b>SOCEP</b>	special operations combat expendable platform
<b>EFTC</b>	extraction force transfer coupling	<b>SOP</b>	standard operating procedure
<b>FM</b>	field manual	<b>TM</b>	technical manual
<b>ft</b>	foot/feet	<b>TO</b>	technical order
<b>gal</b>	gallon	<b>TRADOC</b>	US Army Training and Doctrine Command
<b>HQ</b>	headquarters	<b>US</b>	United States
<b>HSLLADS</b>	high-speed, low-level, airdrop system	<b>USAR</b>	US Army Reserve
<b>IBS</b>	inflatable boat, small	<b>w</b>	with
<b>in</b>	inch	<b>WAPR</b>	water-activated parachute release
<b>JAI</b>	joint airdrop inspector	<b>yd</b>	yard



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**\* Shipper's Declaration for Dangerous Goods has superseded DD Form 1387-2 (February 1982.) Change 1 reflects this change. The basic manual still references the superseded publication. You may wish to make pen and ink changes to update the old reference citations accordingly.**

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