PART FIVE
RIGGING SPECIALIZED LOADS AND EQUIPMENT

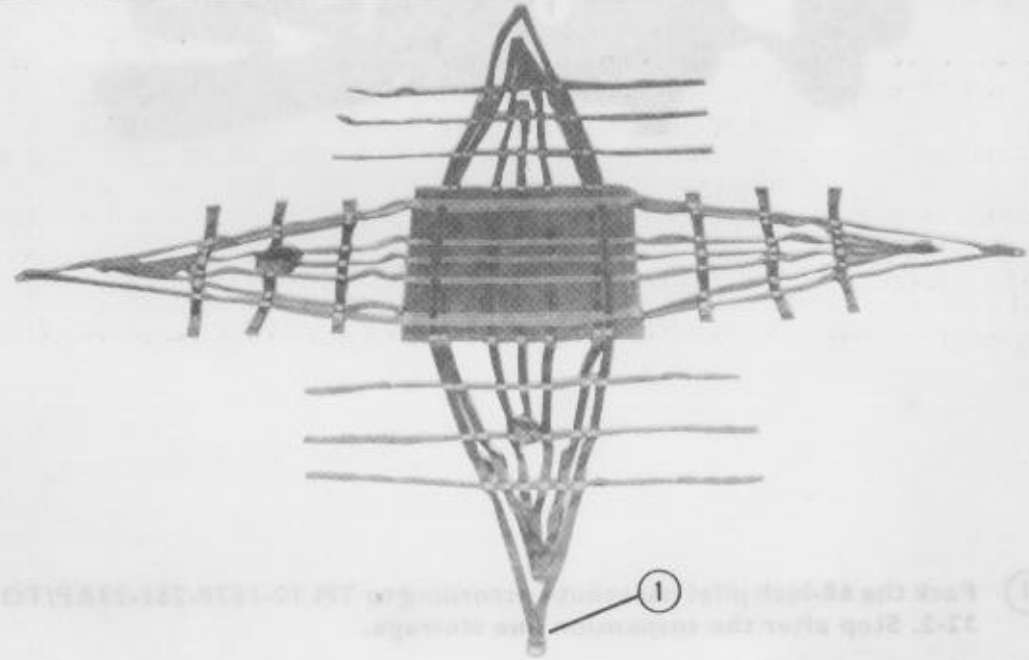
CHAPTER 12
RIGGING A-23 CONTAINERS

12-1. Description of Load

The A-23 container load rigged for delivery by HAARS requires a modified 68-inch pilot parachute, an altitude sensor parachute staging unit, a shear strap, an A-23 cargo bag, and a G-12E cargo parachute. The A-23 cargo bag assembly is constructed similarly to an A-22 cargo bag. The only part that varies is an extra support web with D-rings on each side of the sling assembly. Figure 12-1 shows an A-23 cargo bag sling assembly. The altitude sensor unit is used to sense the altitude of the load and to cut the shear strap at the appropriate altitude. This allows the pilot parachute to be deployed which then deploys the cargo parachute. Set the unit according to TM 10-1670-266-13&P.

a. Shear Strap. A 31-inch shear strap is used to secure the four D-rings on the additional support web. The shear strap is routed through the sensor unit and is cut during descent to allow the parachute to be deployed.

b. Retention Line. The retention line is used to keep the altitude sensor unit on the load after it activates its cutter. It is made of type XVII nylon webbing and can be ordered with the sensor of the altitude sensor unit.

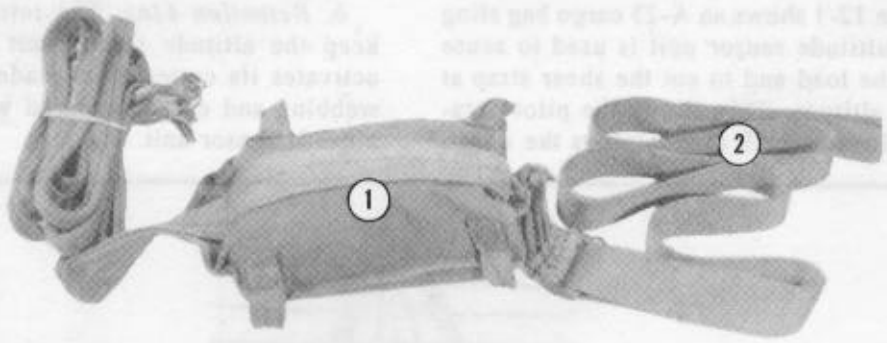


(1) The difference between the A-22 and A-23 sling assembly is the extra support web on each side. This support web is constructed of type X nylon webbing with a D-ring attached.

Figure 12-1. A-23 sling assembly

12-2. Modifying 68-Inch Pilot Parachute

Modify the 68-inch pilot parachute as shown in Figure 12-2.



(1) **Pack the 68-inch pilot parachute according to TM 10-1670-281-23&P/TO 13C5-32-2. Stop after the suspension line stowage.**

(2) **Remove the 111-inch deployment line. Replace it with a 60-inch connector strap.**

Figure 12-2. Pilot parachute modified

(3) **Attach an L-bar connector link to the end of the 60-inch connector strap and finish packing the pilot parachute.**

(4) **Attach a 120-inch connector strap to the L-bar connector link on the pilot parachute.**

(5) **Attach two L-bar connector links to the loop on the running end of the 120-inch connector strap.**

(6) **Attach a 60-inch connector to the upper L-bar connector link on the 120-inch connector strap.**

(7) **Attach an L-bar connector link to the running end of the 60-inch connector strap.**

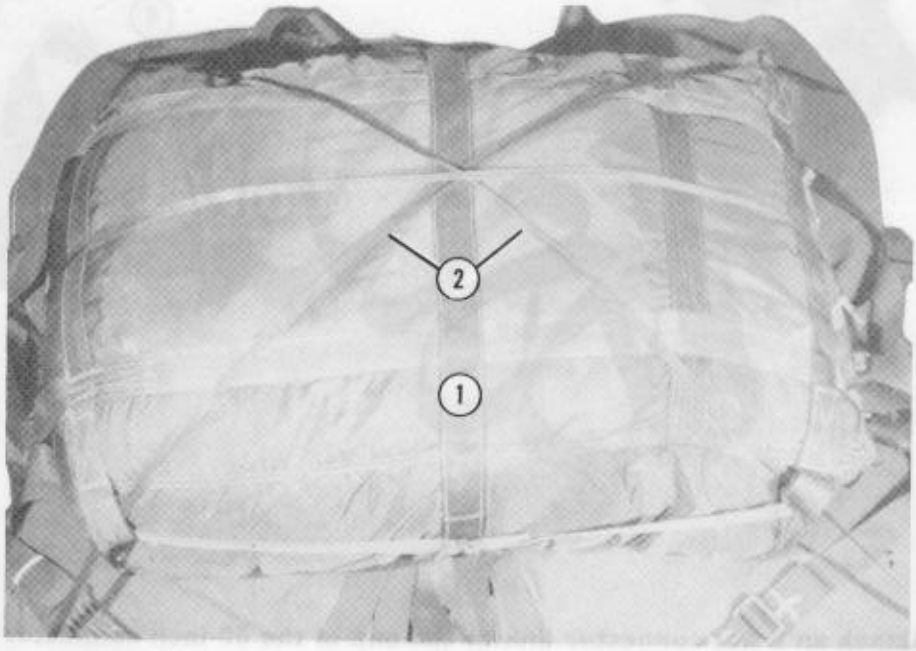
Figure 12-2. Pilot parachute modified (continued)

12-3. Rigging Container

Prepare and rig the load and container the same as a typical A-22 low-velocity load. Refer to paragraphs 9-3 through 9-8 for procedures. Do NOT tie skid board ties to the additional support webs and do NOT install the suspension webs.

12-4. Completing Rigged Load

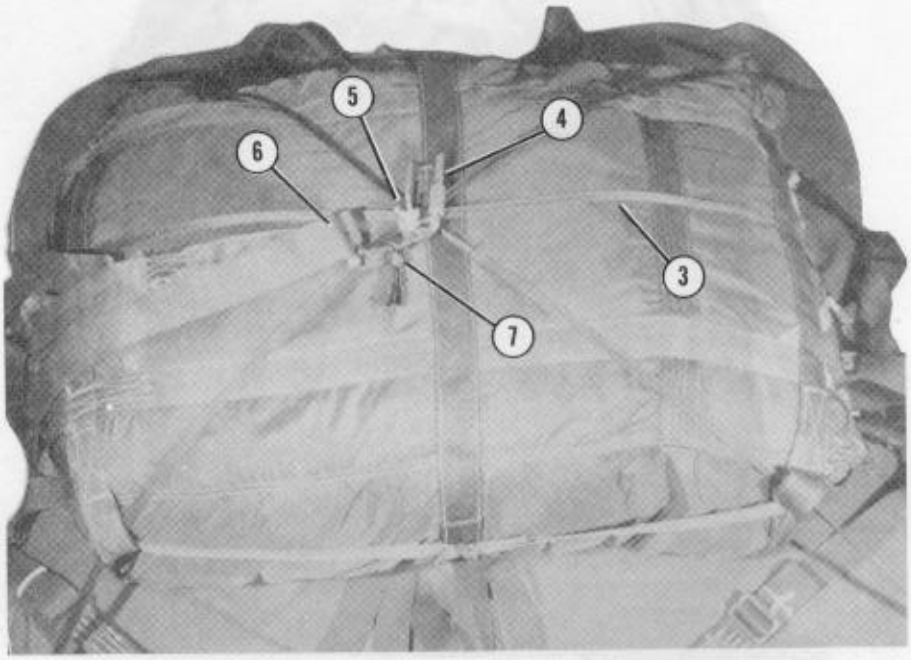
Install the parachutes and altitude sensor unit as shown in Figure 12-3.



(1) **Center the G-12E cargo parachute on top of the load with the riser compartment down. Attach the clevis of the G-12E cargo parachute to the D-rings on the lower support webs.**

(2) **Cut two lengths of 1/2-inch tubular nylon webbing. Run each length diagonally across the parachute to form an "X" and route them through the cluster attaching loops. Tie the lengths to the lateral straps on the container.**

Figure 12-3. Rigged load completed



(3) **Pass a third length of 1/2-inch tubular nylon webbing across the center of the load. Tie it to the lateral straps on the load.**

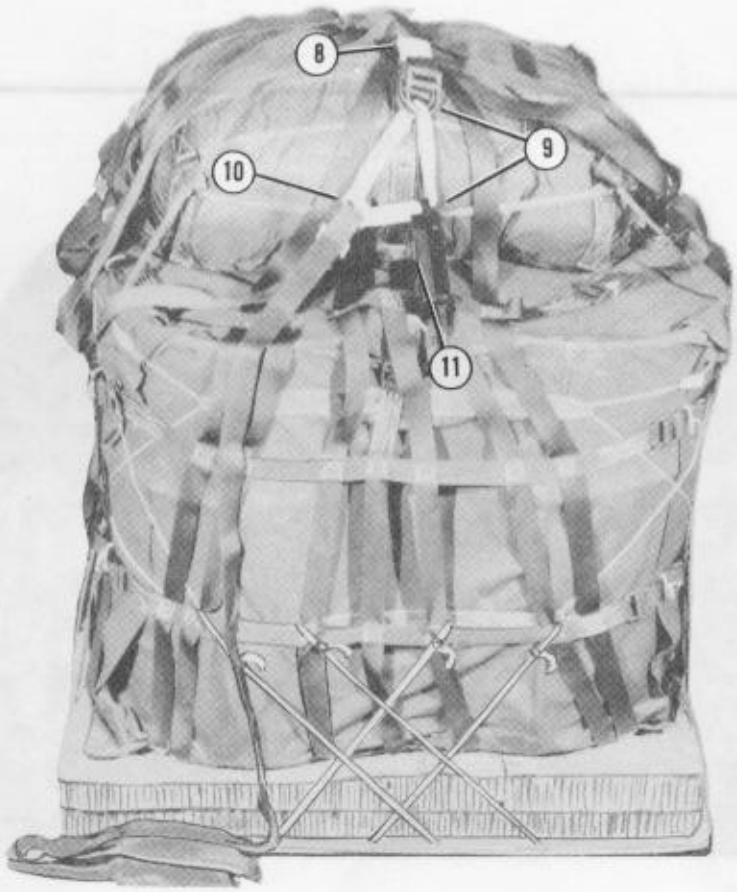
(4) **Fit a release knife around all three lengths of 1/2-inch tubular nylon webbing.**

(5) **Safety tie the knife with a length of type I, 1/4-inch cotton webbing.**

(6) **Fit the L-bar on the running end of the pilot parachute deployment line to the bridle loop of the G-12E deployment bag.**

(7) **Use a length of 1/2-inch tubular nylon webbing to tie the release knife to the link on which the bridle loop is attached.**

Figure 12-3. Rigged load completed (continued)



(8) **Bring the container upper support webs (additional support webs) to the top of the load. Tape them together with masking tape.**

(9) **Use the shear strap to pass the single folded end through the center aperture in the altitude sensor unit and through the D-rings of the upper support webs.**

(10) **Use the free L-bar link at the midsection of the pilot parachute deployment line to secure both running ends of the shear strap on the L-bar.**

(11) **Install the retention line to the L-bar in step 10 and to the altitude sensor unit using an additional L-bar.**

Figure 12-3. Rigged load completed (continued)

(12) Tie the pilot parachute to the load with ticket number 8/7 cotton thread.

Note: The pilot parachute should be secured to the side which will face the anchor line cable.

(13) Use a double length of type III nylon cord. Pass the loop end through the firing pin lanyard. Pass the running ends of the cord through the loop and secure the running ends to the container.

(14) Fold and tape all excess slack in the deployment line of the pilot parachute.

(15) Use a single length of type III nylon cord to tie the connector link at the mouth of the pilot parachute bag to the L-bar on which the shear strap is secured.

Figure 12-3. Rigged load completed (continued)

12-5. Marking Rigged Load

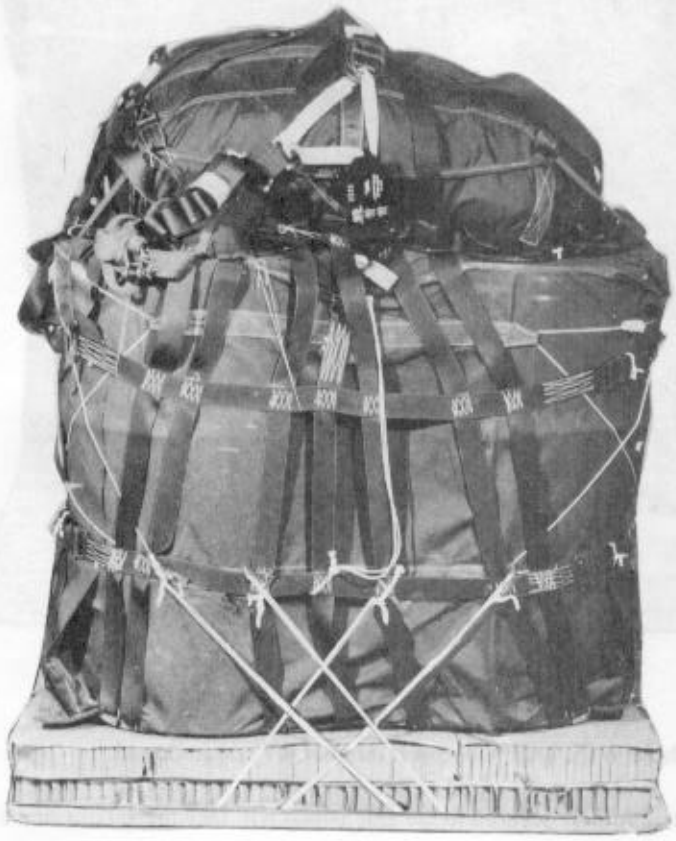
Mark the rigged load according to Chapter 1 using the data given in Figure 12-4. If the load varies from the one shown in Figure 12-4, recompute the rigged load data.

12-6. Equipment Required

Use the equipment listed in Table 12-1 to rig the load shown in Figure 12-4.

CAUTION

Make the final inspection required by Chapter 1 before the load leaves the rigging site. If the load includes hazardous material as defined in AFJMAN 24-204/TM 38-250, complete Shipper's Declaration for Dangerous Goods form.



RIGGED LOAD DATA	
Weight (without parachute)	501 - 2,200 pounds
Height (with parachute)	62 inches
Width	48 inches
Length	48 inches
Parachute	G-12E

Figure 12-4. A-23 container load rigged for HAARS

Table 12-1. Equipment required for rigging an A-23 container load for HAARS

National Stock Number	Item	Quantity
1670-01-071-5022	Altitude sensor, parachute unit:	1
1377-01-064-4927	Cutter assembly	(1)
1670-01-064-4926	Sensor w retention line	(1)
1670-01-065-3748	Bag cargo, A-23 (HAARS)	1
4020-00-240-2146	Cord, nylon, type III, 550-lb	As required
1670-00-836-2231	Knife, release (guillotine)	1
1670-00-217-2421	Link assembly, link, L-bar type	5
1670-00-753-3928	Pad, energy-dissipating, honeycomb	As required
	Parachute:	
1670-01-065-3755	Cargo, G-12E (HAARS)	1
1670-00-216-7297	Pilot, 68-in diam	1
5530-00-914-5118	Plywood, 1- by 48- by 48-in	1 sheet
	or	
5530-00-128-4981	Plywood, 3/4- by 48- by 96-in (locally fabricated skid board)	1 sheet
	Strap:	
	Connector: 60-in	
1670-00-738-5878	60-in	2
1670-00-738-5879	120-in	1
1670-01-067-6533	Shear, 31-in	1
7510-00-266-6710	Tape, masking, 2-in	As required
8310-01-102-4478	Thread, cotton, ticket number 8/7	As required
	Webbing:	
8305-00-268-2411	Cotton, 1/4-in, type I	As required
8305-00-082-5752	Nylon, tubular, 1/2-in	As required