

CHAPTER 12

CERTIFIED DUAL-POINT RIGGING PROCEDURES FOR RADAR AND SATELLITE EQUIPMENT

12-1. INTRODUCTION

This chapter contains rigging procedures for dual-point lift of radar and satellite equipment that has been certified for sling load. Each rigging procedure is found in a paragraph that includes a description of the load, materials required for rigging, and steps to complete the procedure. An applicability paragraph is also a part of each paragraph and identifies the certified loads. The certified dual-

point rigging procedures for radar and satellite equipment are in this section. Paragraphs 12-2 through 12-5 give detailed instructions for rigging loads.

NOTE: Reach Pendants may be used on dual point loads. Place a Reach Pendant on each apex fitting. A static discharge person is not required when using a Reach Pendant.

12-2. OE 361/G Quick Reaction Satellite Antenna

a. Applicability. The following item in Table 12-1 is certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

Table 12-1. OE 361/G Quick Reaction Satellite Antenna

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
Antenna, Satellite, Quick Reaction (QRSA), OE-361/G	4,830	10K	3/30	CH-47	110

b. Materials. The following materials are required to rig this load:

- (1) Sling set (10,000-pound capacity) with one additional apex fitting.
- (2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.
- (3) Cord, nylon, Type III, 550-pound breaking strength.
- (4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.
- (5) Felt sheet, cattle hair, Type IV, 1/2-inch or suitable padding.

c. Personnel. Four persons can prepare and rig this load in 30 minutes.

d. Procedures. The following procedures apply to this load:

- (1) **Preparation.** Prepare the load using the following steps:
 - (a) Install the spreader bar assembly that is stored on the load. Hook the spreader bar assembly cables to the lift rings and secure the keepers with tape.
 - (b) Pad the spreader bar. Secure the padding with tape or cotton webbing.
 - (c) Pad the uppermost stacked antenna panel. Secure the padding with tape or cotton webbing.
 - (d) Secure the ladder, box covers, and any loose equipment with tape or Type III nylon cord.
- (2) **Rigging.** Rig the load according to the steps in Figure 12-1.

NOTE: The ladder end is the front of the load.

(3) **Hookup.** Two hookup teams stand on top of the load between the stacked antenna panels and on either side of the center post. The static discharge person discharges the static electricity. The forward hookup person (ladder end) places apex fitting 1 onto the forward cargo hook. The aft hookup person places apex fitting 2 onto the aft cargo hook. The hookup teams then carefully dismount the container and remain close to the load as the helicopter removes slack from the sling legs. When suc-

cessful hookup is assured, the hookup teams quickly exit the area underneath the helicopter to the designated rendezvous point.

CAUTION

Brief the helicopter crew to relax sling leg tension and to hover to the side of the load when releasing the apex fitting to prevent damaging the antenna.

(4) **Derigging.** Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).

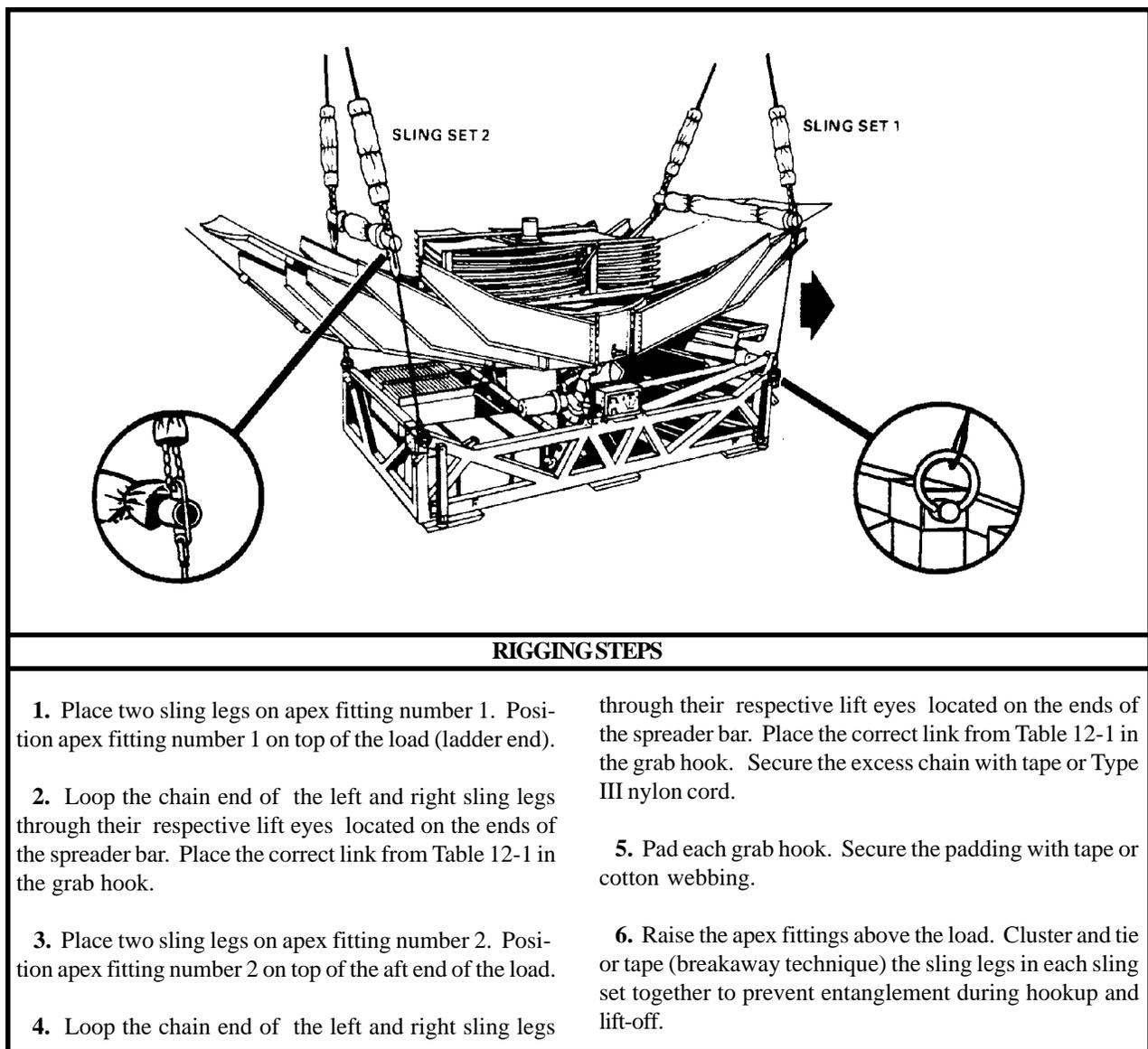


Figure 12-1. OE 361/G Quick Reaction Satellite Antenna

12-3. NATO Air Base SATCOM (NABS) Power Pallet, AN/TSC-85B(V)2

a. Applicability. The following item in Table 12-2 is certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

Table 12-2. NATO Air Base SATCOM (NABS) Power Pallet, AN/TSC-85B(V)2

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
NATO Air Base SATCOM (NABS) Power Pallet, AN/TSC-85B(V)2	8,630	10K	3/3	CH-47	120

b. Materials. The following materials are required to rig this load:

- (1) Sling set (10,000-pound capacity) with one additional apex fitting.
- (2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.
- (3) Cord, nylon, Type III, 550-pound breaking strength.
- (4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

c. Personnel. Two persons can prepare and rig this load in 20 minutes.

d. Procedures. The following procedures apply to this load:

(1) **Preparation.** Prepare the load using the following steps:

- (a) Secure all cargo inside the shelter or on the pallet with tape or Type III nylon cord.
- (b) Close and secure all access cover latches, vents, and doors. Tape all exhaust covers.

(c) Remove the cargo cover and stow it in the prime mover. **DO NOT STOW THE COVER ON THE PALLET.**

(2) **Rigging.** Rig the load according to the steps in Figure 12-2.

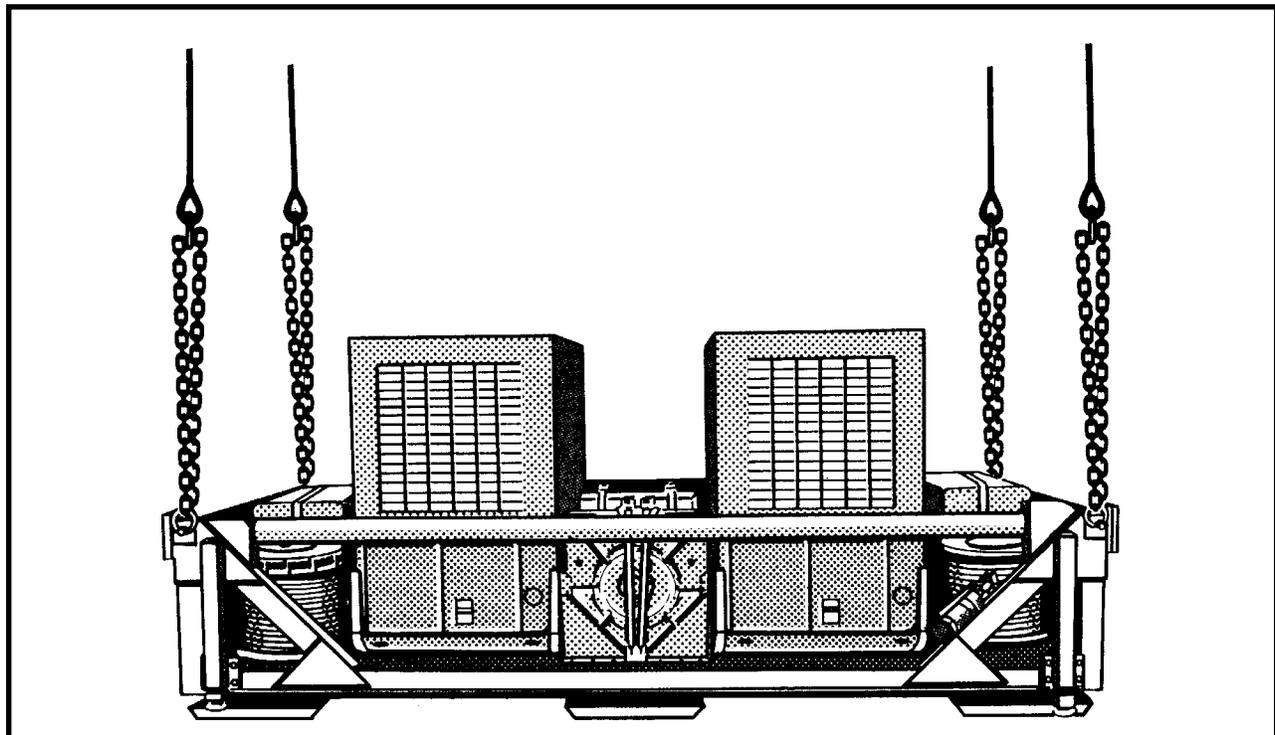
NOTE: The Required Individual Equipment (RIE) case end of the pallet is designated as the forward end of the load.

(3) **Hookup.** Two hookup teams are used for this load. The static wand person discharges the static electricity with the static wand. The forward hookup person stands on top of the generators and places apex fitting 1 onto the forward cargo hook. The aft hookup person stands on top of the generators and places apex fitting 2 onto the aft cargo hook. The hookup team then carefully dismounts the load and remains close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup team quickly exits the area underneath the helicopter to the designated rendezvous point.

CAUTION

Brief the helicopter crew to relax sling leg tension and to hover to the side of the load when releasing the apex fitting to prevent damaging the antenna.

(4) **Derigging.** Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Place two sling legs on apex fitting number 1. Position apex fitting number 1 on top of the generator on the forward end.

2. Loop the chain end of the left and right sling legs through their respective lift provisions located on the corners of the pallet. Place the correct link from Table 12-2 in the grab hook.

3. Place two sling legs on apex fitting number 2. Position apex fitting number 2 on top of the generator on the aft end of the pallet.

4. Loop the chain end of the left and right sling legs through their respective lift provisions located on the corners of the pallet. Place the correct link from Table 12-2 in the grab hook.

NOTE: DO NOT use the lift provisions on the generators.

5. Raise the apex fittings above the load. Cluster and tie or tape (breakaway technique) the sling legs in each sling set together to prevent entanglement during hookup and lift-off.

Figure 12-2. NATO Air Base SATCOM (NABS) Power Pallet, AN/TSC-85B(V)2

12-4. Digital Group Multiplexer (DGM) Digital Antenna Mast Program (DAMP) Pallet Trailer

a. Applicability. The following items in Table 12-3 are certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

Table 12-3. Digital Group Multiplexer, Digital Antenna Mast Program, Pallet Trailer

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
Digital Group Multiplexer, Digital Antenna Mast Program, Pallet Trailer, 2 Antenna Configuration	13,400	25K	13/3	CH-47	100
Digital Group Multiplexer, Digital Antenna Mast Program, Pallet Trailer, 3 Antenna Configuration	14,600	25K	13/3	CH-47	110

b. Materials. The following materials are required to rig this load:

(1) Sling set (25,000-pound capacity) with one additional apex fitting.

(a) Chain length, part number 38850-00053-102, from a 25,000-pound capacity sling set (4 each).

(b) Coupling link, part number 664241, from a 25,000-pound sling set (4 each).

(2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.

(3) Cord, nylon, Type III, 550-pound breaking strength.

(4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.

(5) Webbing, tubular, nylon, 1/2-inch, 1,000-pound breaking strength.

(6) Felt sheet, cattle hair, Type IV, 1/2-inch or suitable padding.

c. Personnel. Two persons can prepare and rig this load in 30 minutes.

d. Procedures. The following procedures apply to this load:

(1) **Preparation.** Prepare the load using the following steps:

(a) Engage the trailer parking brakes.

(b) Tape the rubber flaps on the generator to the frame.

(c) Adjust the leveling jacks on the front of the trailer so the trailer is level.

(d) Attach an additional chain length to each sling leg chain with a coupling link.

(2) **Rigging.** Rig the load according to the steps in Figure 12-3.

(3) **Hookup.** Two hookup teams stand on top of the trailer. The static discharge person discharges the static electricity. The forward hookup person places apex fitting 1 onto the forward cargo hook. The aft hookup person places apex fitting 2 onto the aft cargo hook. The hookup teams then carefully dismount the trailer and remain close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured,

the hookup teams quickly exit the area underneath the helicopter to the designated rendezvous point.

(4) **Derigging.** Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).

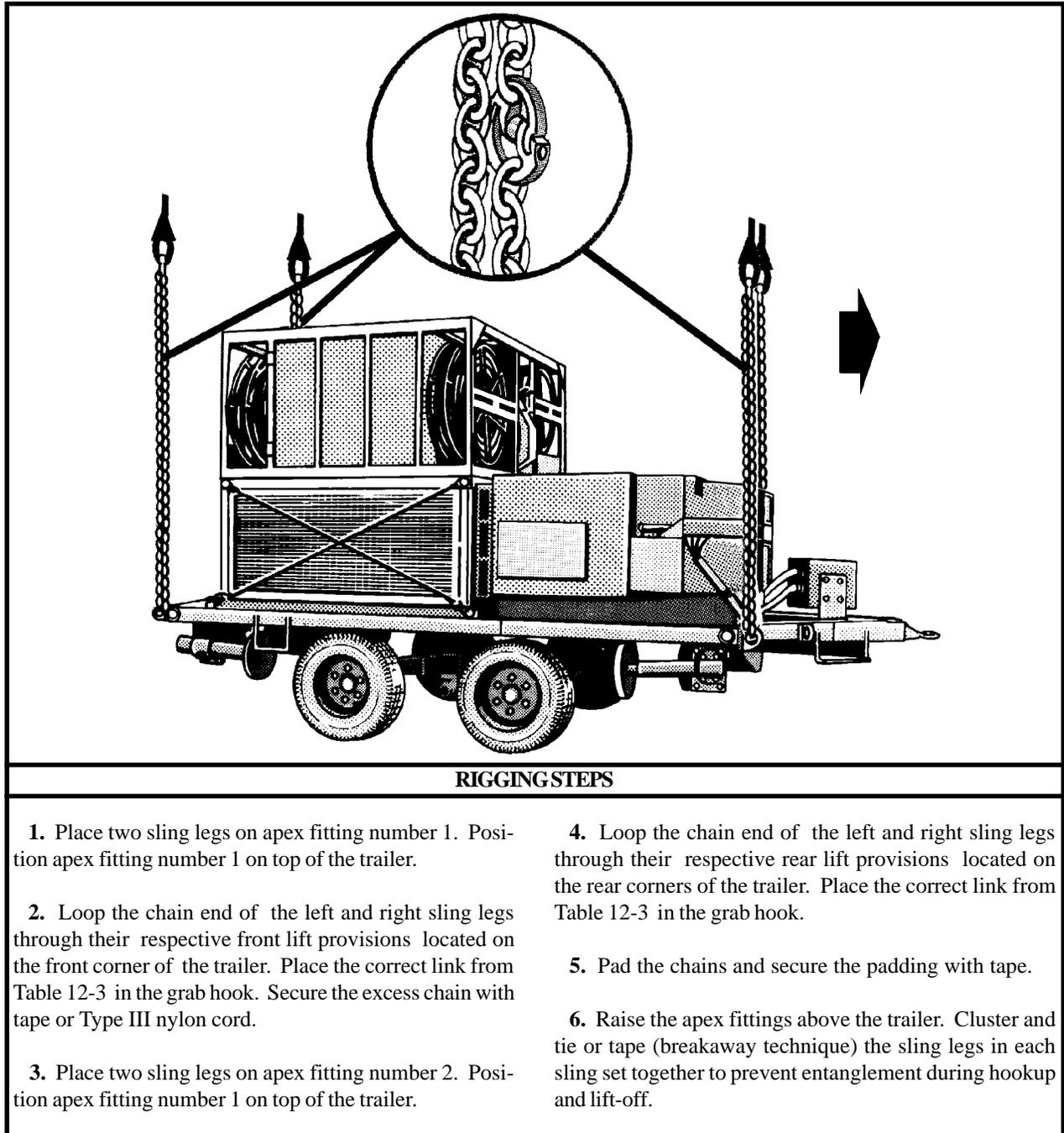


Figure 12-3. Digital Group Multiplexer, Digital Antenna Mast Program, Pallet Trailer

12-5. Lightweight Generator Frame Assembly (AN/TSC-93B Reconfiguration), Satellite Communications Terminal

a. Applicability. The following item in Table 12-4 is certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

Table 12-4. Lightweight Generator Frame Assembly

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
AN/TSC-93B Satellite Communications Terminal without ALTA	3,644	10K	3/3	CH-47	120
AN/TSC-93B Satellite Communications Terminal with ALTA	3,957	10K	3/3	CH-47	120

b. Materials. The following materials are required to rig this load:

- (1) Sling set (10,000-pound capacity) with one additional apex fitting.
- (2) Tape, adhesive, pressure-sensitive, 2-inch wide roll.
- (3) Cord, nylon, Type III, 550-pound breaking strength.
- (4) Webbing, cotton, 1/4-inch, 80-pound breaking strength.
- (5) Strap, cargo, tiedown, CGU-1/B (as required).

c. Personnel. Three persons can prepare and rig this load in 10 minutes.

d. Procedures. The following procedures apply to this load:

(1) **Preparation.** Prepare the load using the following steps:

(a) Secure all equipment with tiedown straps, Type III nylon cord, or tape.

(b) Remove and stow the protective cover. Secure the cover with Type III nylon cord.

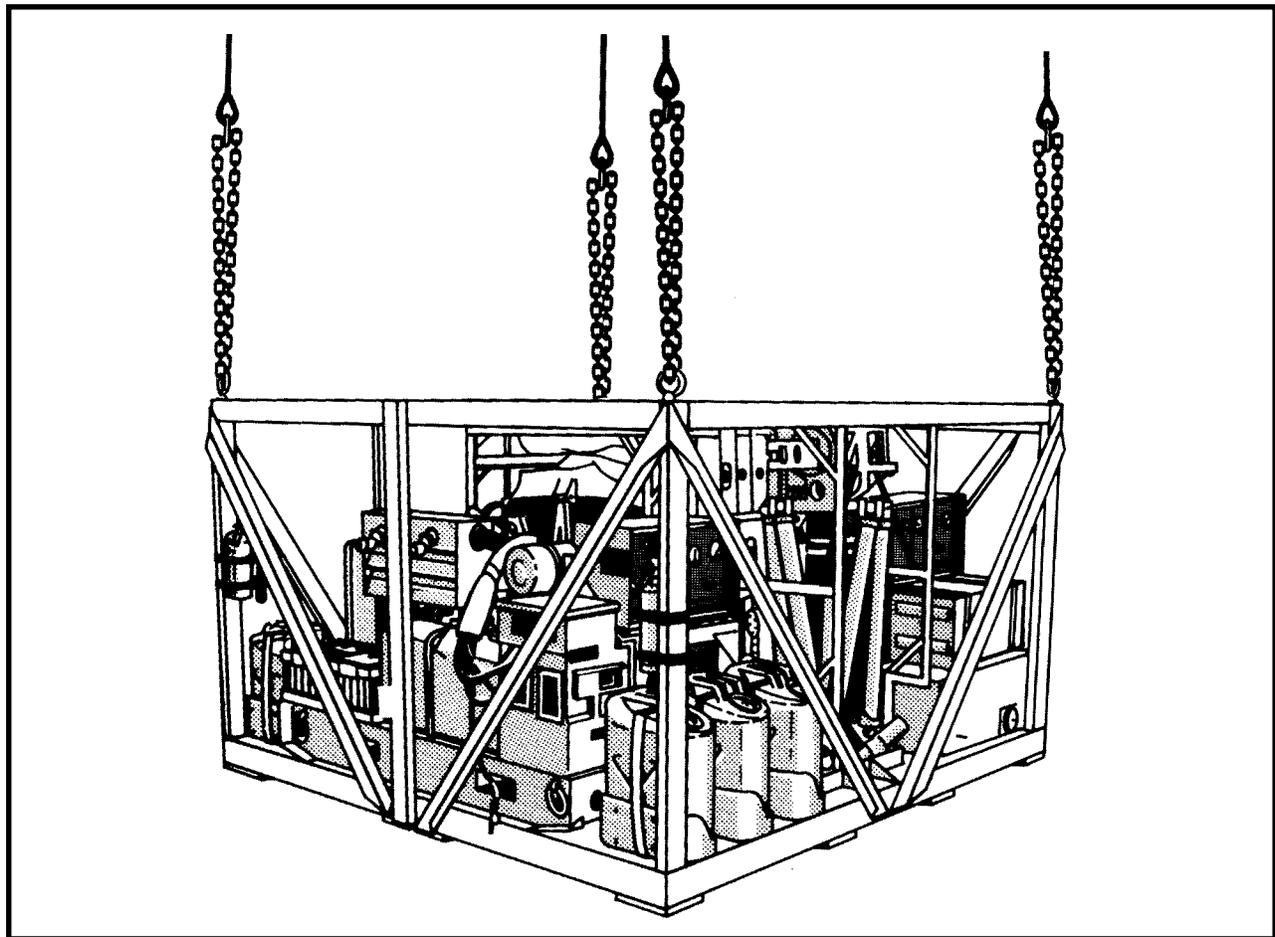
(2) **Rigging.** Rig the load according to the steps in Figure 12-4.

(3) **Hookup.** Two hookup teams stand on top of the frame. The static discharge person discharges the static electricity. The forward hookup person places apex fitting 1 onto the forward cargo hook. The aft hookup person places apex fitting 2 onto the aft cargo hook. The hookup teams then carefully dismount the load and remain close to the load as the helicopter removes slack from the sling legs. When successful hookup is assured, the hookup teams quickly exit the area underneath the helicopter to the designated rendezvous point.

CAUTION

Brief the helicopter crew to relax sling leg tension and to hover to the side of the load when releasing the apex fitting to prevent damaging the antenna.

(4) **Derigging.** Derigging is the reverse of the preparation and rigging procedures in steps d (1) and d (2).



RIGGING STEPS

1. Place two sling legs on apex fitting number 1. Position apex fitting number 1 on top of the generator pallet.
2. Loop the chain end of the left and right sling legs through their respective front lift provisions located on the front corner of the pallet. Place the correct link from Table 12-4 in the grab hook.
3. Place two sling legs on apex fitting number 2. Position apex fitting number 1 on top of the generator pallet.
4. Loop the chain end of the left and right sling legs through their respective rear lift provisions located on the rear corners of the pallet. Place the correct link from Table 12-4 in the grab hook.
5. Raise the apex fittings above the load. Cluster and tie or tape (breakaway technique) the sling legs in each sling set together to prevent entanglement during hookup and lift-off.

Figure 12-4. Lightweight Generator Frame Assembly