

## 8-25. Extendable Boom Forklift (EBFL)

**a. Applicability.** The following item in Table 8-24 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-24. Extendable Boom Forklift (EBFL)**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Extendable Boom Forklift, (EBFL), TAMCN B2561	25,640	40K	3/20	105

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

- (1) Sling set (40,000-pound capacity).
- (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) Tie-down strap, cargo, CGU-1/B (as required).

**c. Personnel.** Two persons can prepare and rig each load in 10 minutes.

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

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

- (a) Secure the forks against the carriage using the CGU-1/Bs.

(b) Raise the carriage 10 inches off the ground, retract and raise the boom.

(c) Set the parking brake.

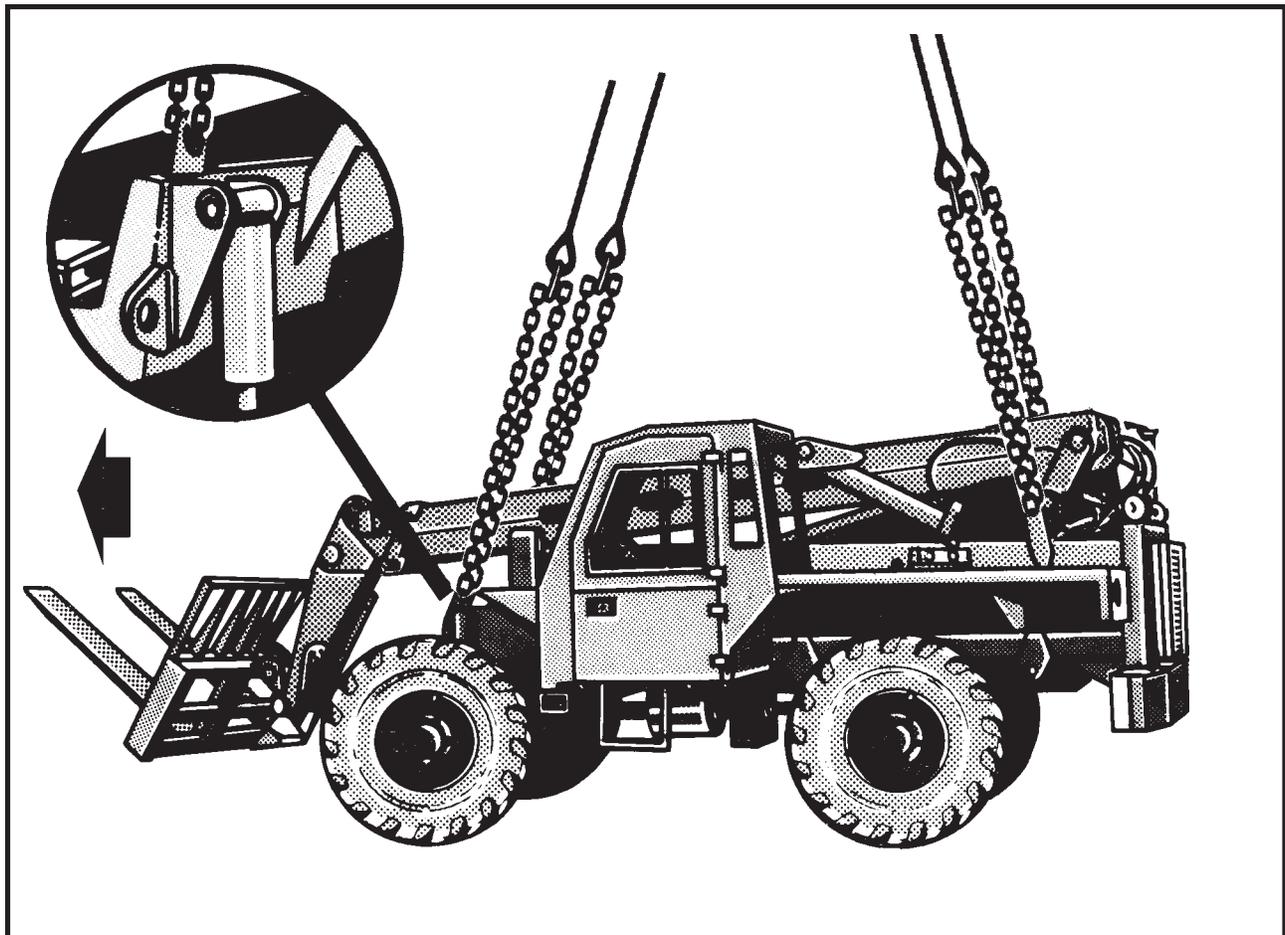
(d) Place the gear selector lever in neutral.

(e) Tape the exhaust pipe end.

(2) **Rigging.** Rig the load according to the steps in Figure 8-24.

(3) **Hookup.** The hookup team stands on the falling objects protection system (FOPS). The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position the apex fitting on top of the falling object protection system (FOPS). Route outer sling legs 1 and 2 to the front of the EBFL and inner sling legs 3 and 4 to the rear of the EBFL. Sling legs 1 and 3 must be on the left side of the load.
2. Loop the chain end of sling leg 1 through the left front lift provision. Place the correct link from Table 8-24 in the grab hook. Repeat with sling leg 2 and the right front lift provision.
3. Loop the chain end of sling leg 3 through the left rear lift provision. Place the correct link from Table 8-24 in the grab hook. Repeat with sling leg 4 and the right rear lift provision. Secure excess chain with tape or Type III nylon cord.
4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the FOPS to prevent entanglement during hookup and lift-off.

*Figure 8-24. Extensible Boom Forklift (EBFL)*

## 8-26. Welding Shop on M200A1 Trailer

**a. Applicability.** The following item in Table 8-25 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-25. Welding Shop on M200A1 Trailer**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Welding Shop on M200A1	7,220	10K	3/17	120

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

- (1) Sling set (10,000-pound capacity).
- (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, nylon, tubular, 1/2-inch.

**c. Personnel.** Two persons can prepare and rig each 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 compressed gas cylinders to trailer with nylon cord. Ensure all the caps are properly installed.

**(b)** Secure the safety chains to tow bar of trailer with tape or Type III nylon cord.

**(c)** Secure rear outriggers in position by routing 1/2-inch tubular nylon over rear deck and under engine housing and tie on outriggers below step plate.

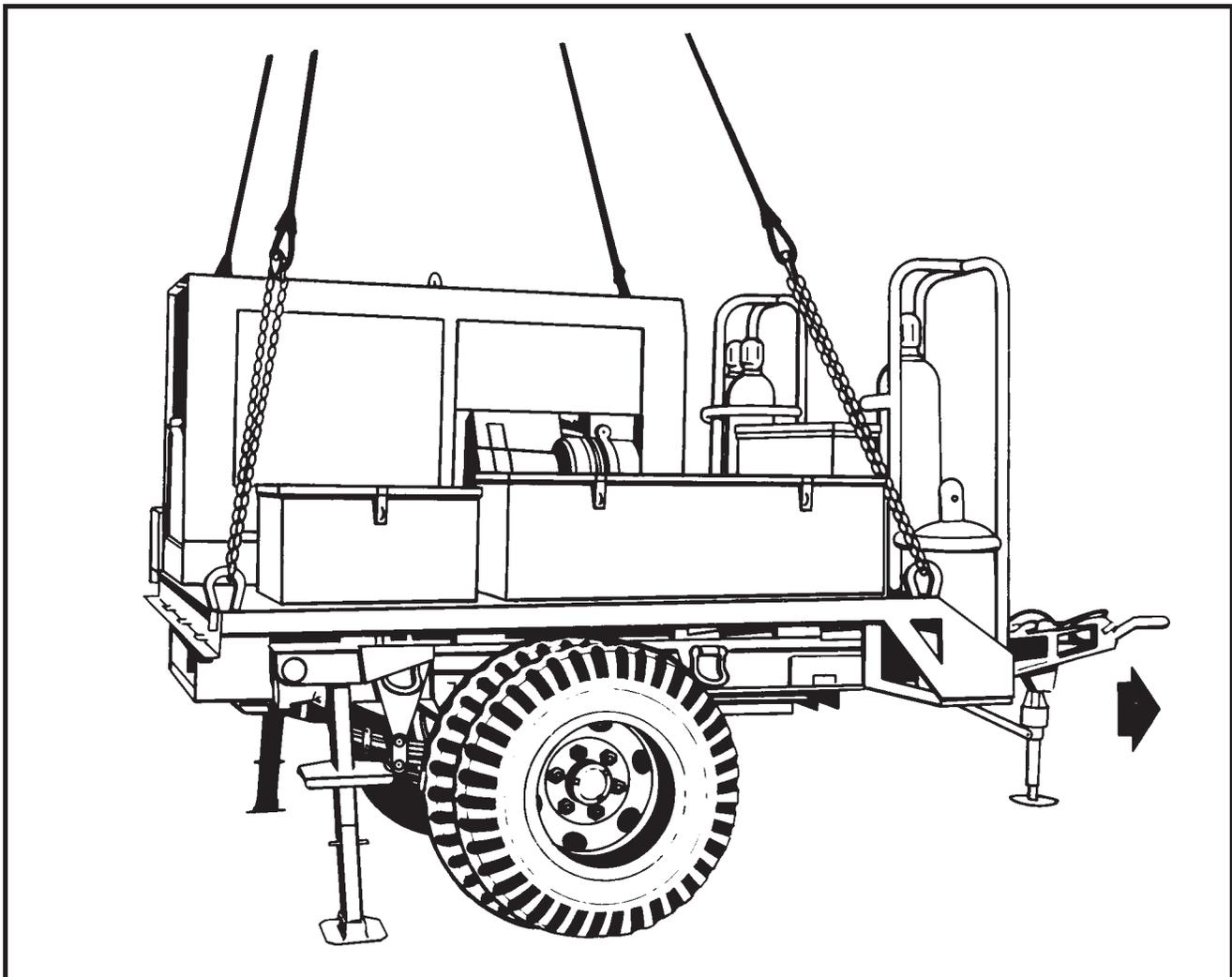
**(d)** Secure engine doors and control panel cover by routing nylon cord around entire engine and tying cord.

**(e)** The front leg must be in full down position.

**(2) Rigging.** Rig the load according to the steps in Figure 8-25.

**(3) Hookup.** The hookup team stands on top of the trailer. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position apex fitting on top of welding shop. Route outer sling legs 1 and 2 to the front of the trailer and inner sling legs 3 and 4 to the rear of the trailer. Sling legs 1 and 3 should be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front lift provision located on the left front corner of the trailer. Place the correct link from Table 8-25 in the grab hook. Repeat with sling leg 2 on the right front lift provision.

3. Loop the chain end of sling leg 3 through the left rear lift provision. Place the correct link from Table 8-25 in the grab hook. Repeat with sling leg 4 on the right rear lift provision. Secure excess chain with tape or nylon cord.

4. Cluster and tie or tape (breakaway technique) all sling legs together to prevent entanglement during hookup and lift-off.

*Figure 8-25. Welding Shop on M200A1 Trailer*

## 8-27. 250 CFM Air Compressor

**a. Applicability.** The following item in Table 8-26 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-26. 250 CFM Air Compressor**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Compressor, Air, 250 CFM, LIN E72804	7,425	10K	3/15	100

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

- (1) Sling set (10,000-pound capacity).
- (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 substitute.

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

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

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

- (a) Engage parking brake. Secure light cables with

tape or nylon cord. Tie off hoses on reels to prevent unrolling. Close and latch all doors and lids.

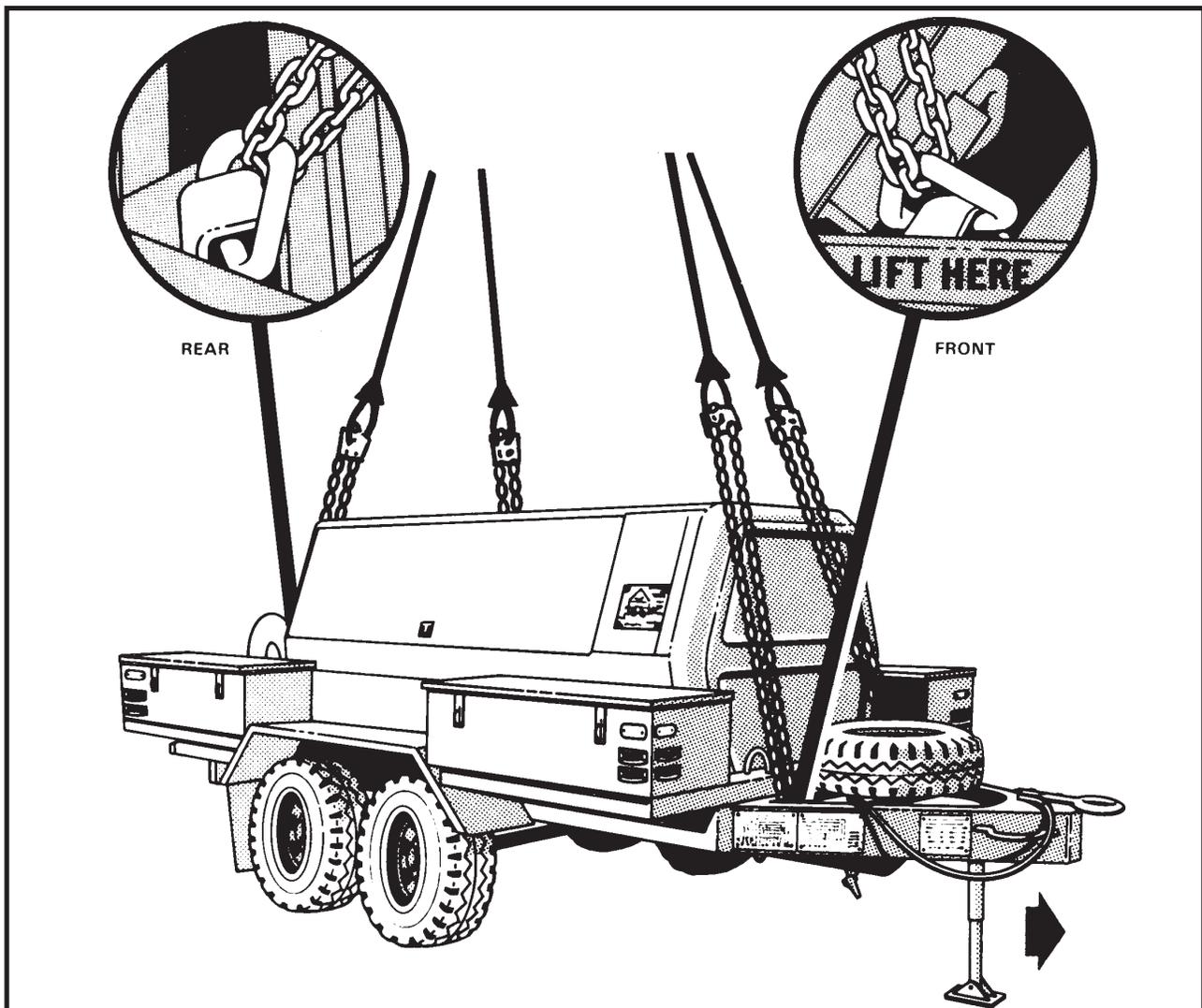
(b) Ensure fuel cap is secure. Pad front corners of shelter along bolt lines with felt and tape.

(c) Tape or tie the lift provisions in the UP position to prevent fouling.

(2) **Rigging.** Rig the load according to the steps in Figure 8-26.

(3) **Hookup.** The hookup team stands on top of the trailer. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Carefully place apex fitting on top of the compressor. Route outer sling legs 1 and 2 to the front of the trailer and the inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.

2. Loop the chain end from sling leg 1 through the left front lift provision on the tongue of the trailer. Place the correct link from Table 8-26 in the grab hook. Repeat this procedure for sling leg 2 on the right side of the tongue.

3. Loop the chain end from sling leg 3 through the left rear lift provision. Place the correct link from Table 8-26 in the grab hook. Repeat this procedure for sling leg 4. Tape or tie (breakaway technique) the sling legs to prevent fouling the hose reels. Secure excess chain with tape or nylon cord.

4. Cluster and tie or tape (breakaway technique) all sling legs together to prevent entanglement during hookup and lift-off.

Figure 8-26. 250 CFM Air Compressor

## 8-28. Pneumatic Tool and Compressor Outfit / Hydraulic Pioneer Tool Outfit (PTO) on M353 Trailer

**a. Applicability.** The following items in Table 8-27 are certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-27. Tool Outfits on M353 Trailer**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Pneumatic Tool and Compressor, TAMCN B0395	8,040	10K	3/18	75
Hydraulic Pioneer Tool Outfit (PTO)	6,740	10K	3/20	100

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

- (1) Sling set (10,000-pound capacity).
- (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 substitute.

**c. Personnel.** Two persons can prepare and rig each load in 15 minutes.

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

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

- (a) Engage both hand brakes.

(b) Ensure fuel cap is secure. Secure all loose gear and doors.

(c) Secure the light cable to the drawbar with Type III nylon cord or tape.

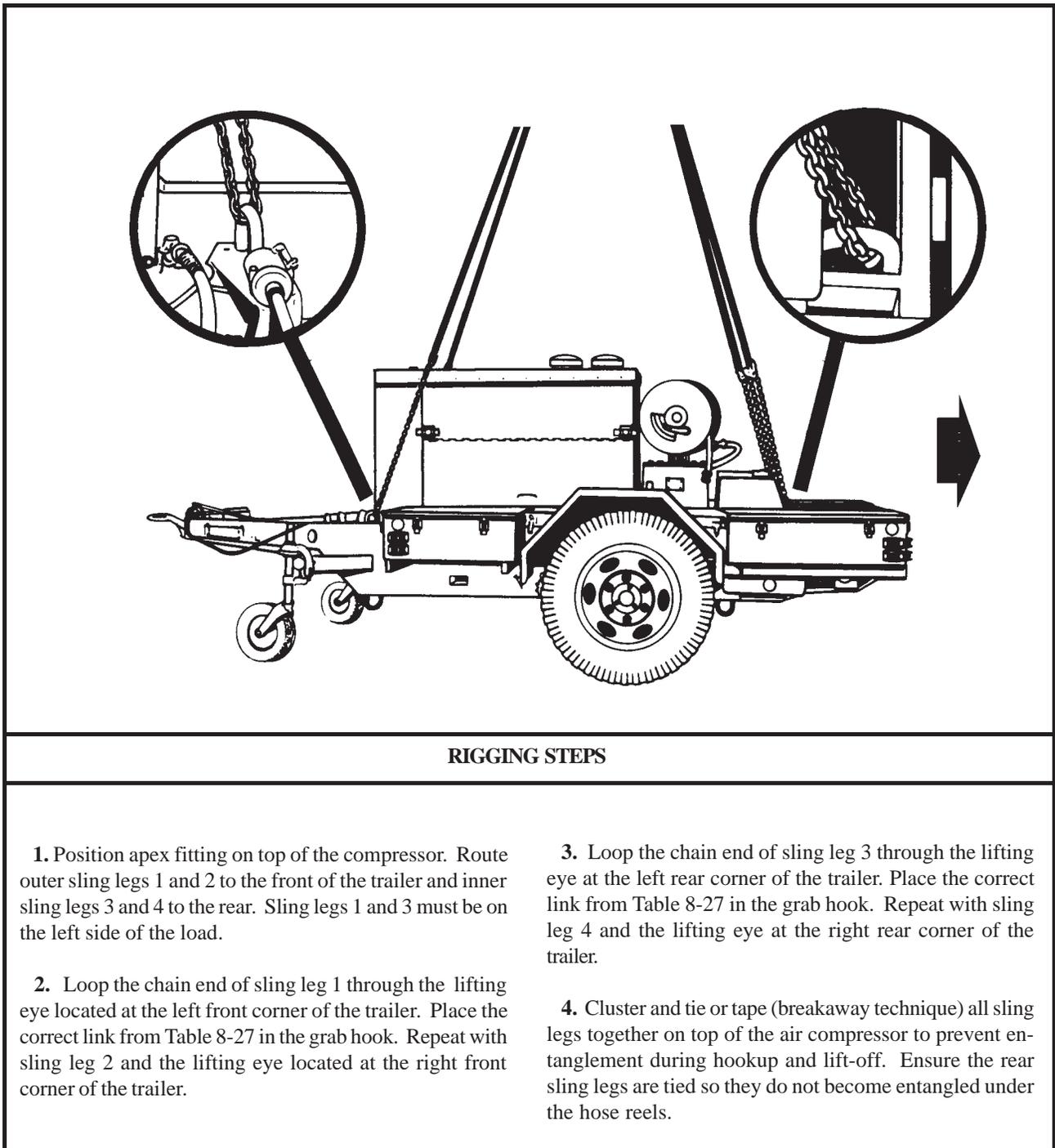
(d) Tape all lights, reflectors, and glass fixtures.

(e) Secure the two small wheels

**(2) Rigging.** Rig the load according to the steps in Figure 8-27.

**(3) Hookup.** The hookup team stands on top of the trailer. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



*Figure 8-27. Tool Outfits on M353 Trailer*

## 8-29. Fuel Dispensing System, Tactical Airfield (TAFDS)

**a. Applicability.** The following item in Table 8-28 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-28. Fuel Dispensing System, Tactical Airfield (TAFDS)**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Pump, 600 gallon per minute, TAFDS	3,500	15K	5/5	60

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

- (1) Sling set (15,000-pound capacity).
- (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 each load in 15 minutes.

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

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

- (a) Secure the battery cover, inlet plugs, and outlet plugs with tape or Type III nylon cord.

- (b) Tape the engine intake and exhaust openings.

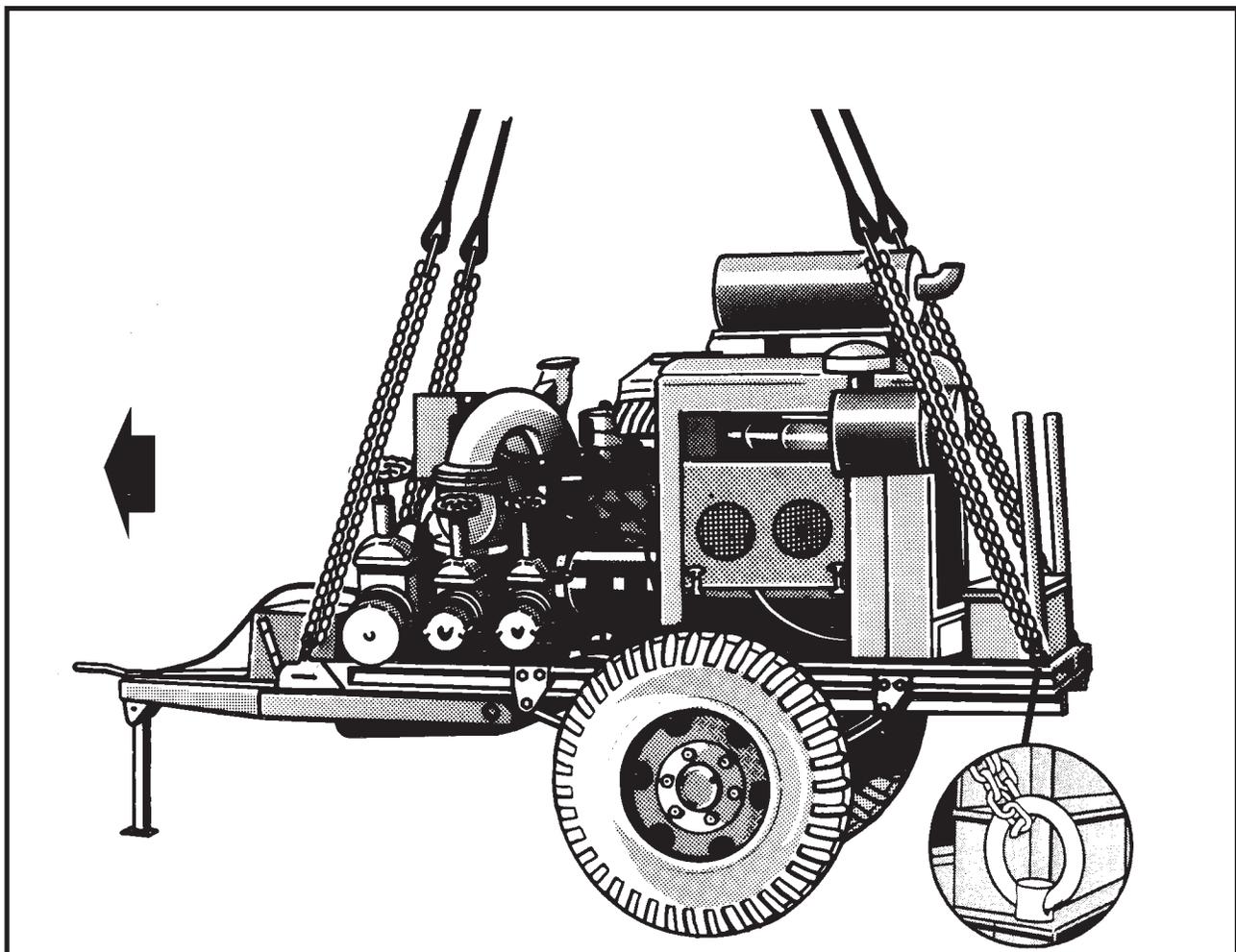
- (c) Secure the canvas cover on the pump with Type III nylon cord.

- (d) Engage one hand brake.

(2) **Rigging.** Rig the load according to the steps in Figure 8-28.

(3) **Hookup.** The hookup team stands on the pump tires. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position apex fitting on top of the pump. Route outer sling legs 1 and 2 to the front of the trailer and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front lift provision located on the left front corner of the trailer. Place the correct link from Table 8-28 in the grab hook. Repeat with sling leg 2 and the right front lift provision.

3. Loop the chain end of sling leg 3 through the left rear lift provision located on the left rear corner of the trailer. Place the correct link from Table 8-28 in the grab hook. Repeat with sling leg 4 and the right rear lift provision.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the pump to prevent entanglement during hookup and lift-off.

Figure 8-28. Fuel Dispensing System, Tactical Airfield (TAFDS)

## 8-30. Bath Unit Mounted on the M103 Trailer

**a. Applicability.** The following item in Table 8-29 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-29. Bath Unit on M103 Trailer**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Bath Unit on M103 Trailer	4,800	15K	16/30	45

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

- (1) Sling set (15,000-pound capacity).
- (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 each load in 15 minutes.

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

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

(a) Ensure all tanks are empty. Secure all tank covers and lids with tape or Type III nylon cord.

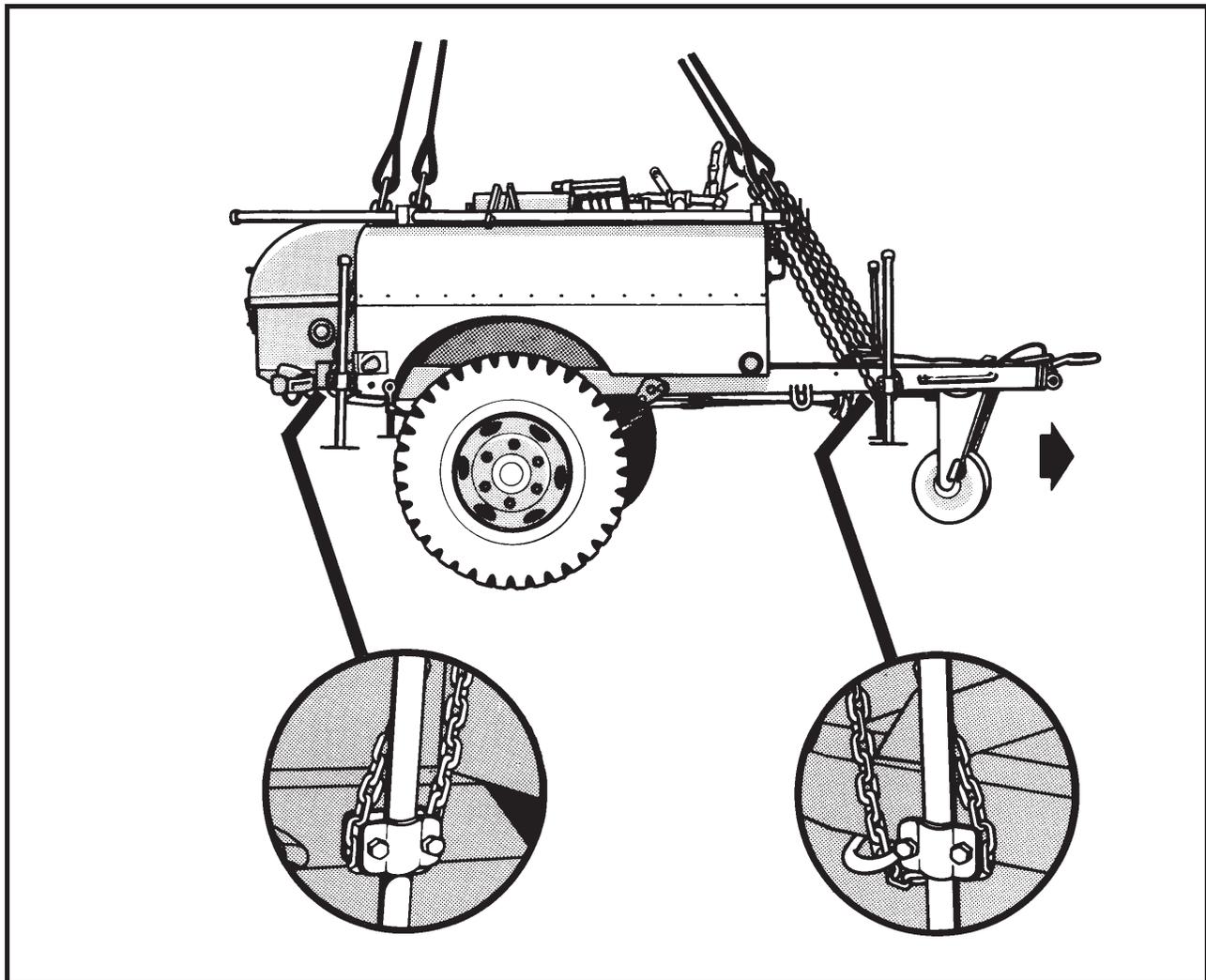
(b) Raise and secure the jack mounts 1 foot off the ground.

(c) Engage the parking brake.

(2) **Rigging.** Rig the load according to the steps in Figure 8-29.

(3) **Hookup.** The hookup team stands beside the bath unit. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position apex fitting on top of the bath unit. Route outer sling legs 1 and 2 to the front of the trailer and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front steady jack eye and under the jack mount. Place the correct link from Table 8-29 in the grab hook. Repeat with sling leg 2 and the right front jack mount. Secure excess chain with tape or Type III nylon cord.

3. Loop the chain end of sling leg 3 around the left rear jack mount. Place the correct link from Table 8-29 in the grab hook. Repeat with sling leg 4 and the right rear jack mount. Secure excess chain with tape or Type III nylon cord.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the bath unit to prevent entanglement during hookup and lift-off.

Figure 8-29. Bath Unit on M103 Trailer

## 8-31. Boat, Bridge Erection

**a. Applicability.** The following item in Table 8-30 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-30. Boat, Bridge Erection**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Boat, Bridge Erection, 27-foot	6,000	15K	4/4	60

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

- (1) Sling set (15,000-pound capacity).
- (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 each load in 30 minutes.

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

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

**(a)** Remove and secure the canvas cover in the stern of the boat.

**(b)** Remove or secure all loose items of equipment.

**(c)** Attach the front section to the rear section of the boat.

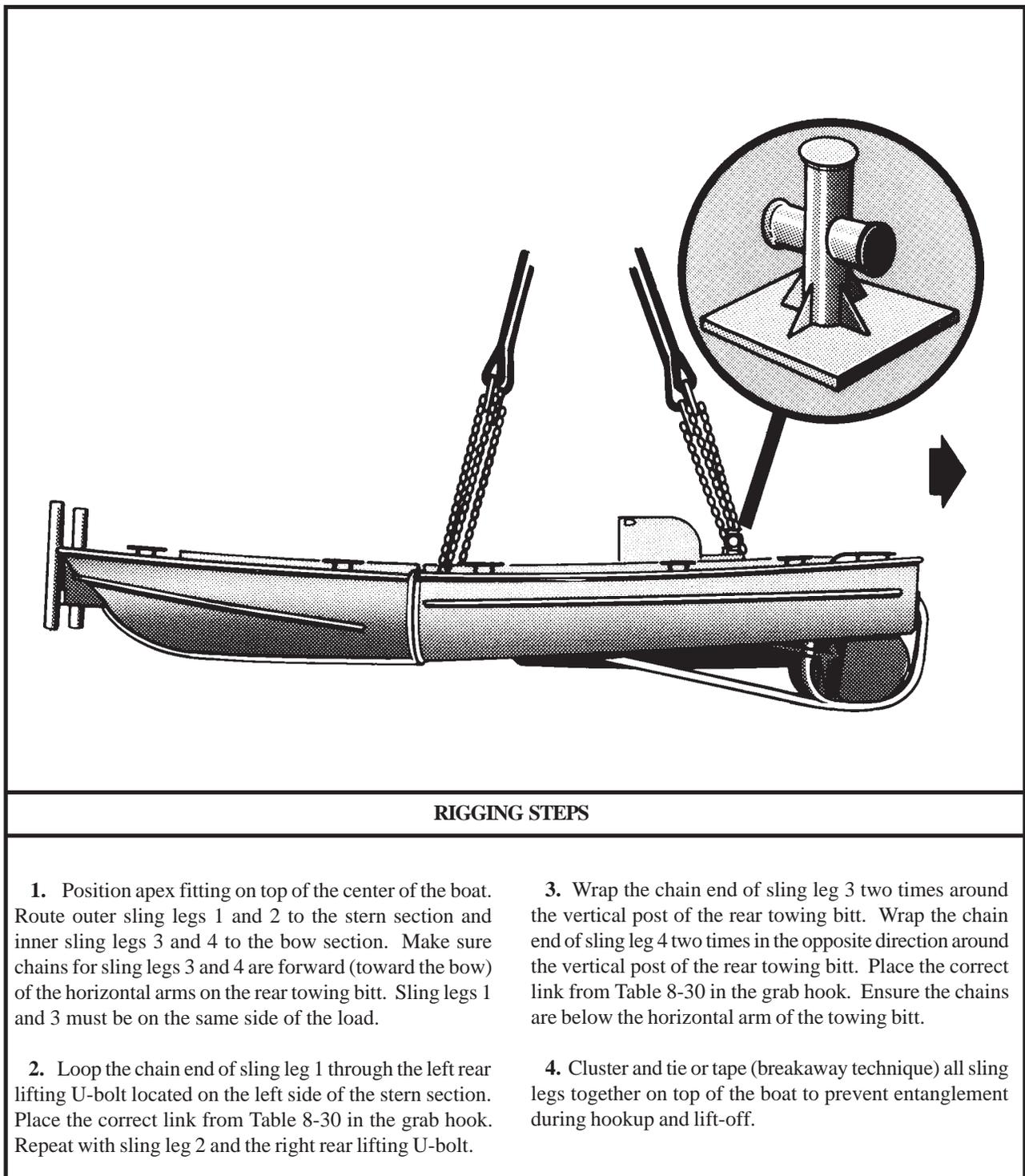
**(d)** Tape all lights, gages, compass, and glass items.

**(e)** Ensure the shipping cradles are removed from both boat sections.

**(2) Rigging.** Rig the load according to the steps in Figure 8-30.

**(3) Hookup.** The hookup team stands on top of the boat. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



*Figure 8-30. Boat, Bridge Erection*

## 8-32. Bridge, Medium Girder, Dry Gap (MGB)

**a. Applicability.** The following item in Table 8-31 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-31. Medium Girder Bridge**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Medium Girder Bridge, Ramp Section, Palletized, TAMCN B0152	6,500	15K	10/5	70

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

- (1) Sling set (15,000-pound capacity).
- (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) Tie-down strap, cargo, CGU-1/B (as required).

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

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

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

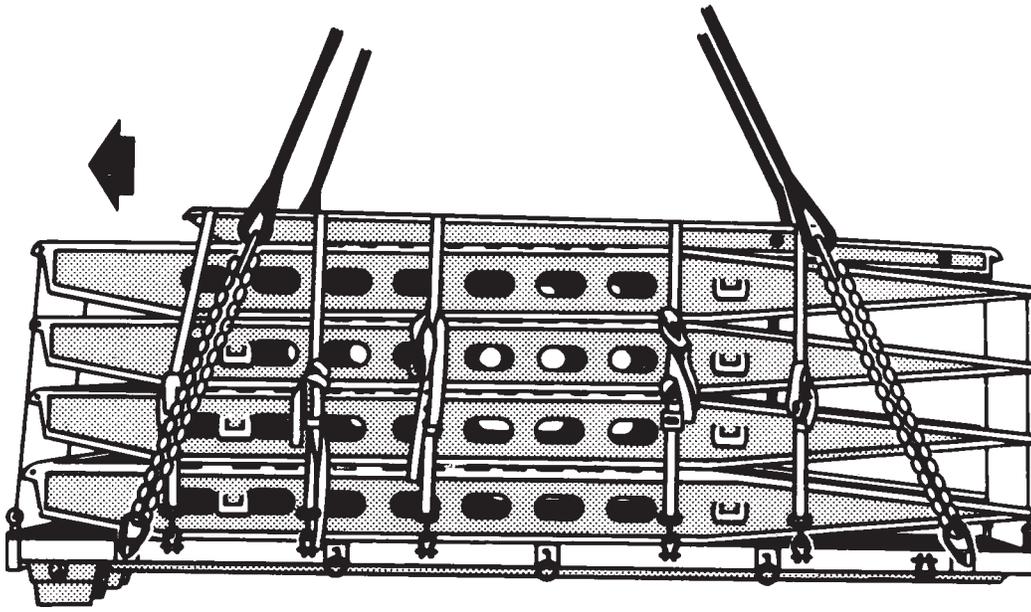
(a) The larger ends of the bridge sections are at the front of the load.

(b) Ensure all sections of the bridge are properly secured to the pallet using the cargo tie-down straps. Route two straps from the pallet forward end to the aft end. Route the remaining straps from one side of the pallet, over the ramp sections, and to the other side of the pallet. Tighten all tie-down straps.

(2) **Rigging.** Rig the load according to the steps in Figure 8-31.

(3) **Hookup.** The hookup team stands on top of the bridge ramp sections. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position apex fitting on top of the ramp sections. Route outer sling legs 1 and 2 to the front of the load and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.

2. Loop the chain end of sling leg 1 through the pallet left front lift provision. Place the correct link from Table 8-31 in the grab hook. Repeat with sling leg 2 and the pallet right front lift provision. Secure excess chain with tape or nylon cord.

3. Loop the chain end of sling leg 3 through the pallet left rear lift provision. Place the correct link from Table 8-31 in the grab hook. Repeat with sling leg 4 and the pallet right rear lift provision.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the bridge ramp sections to prevent entanglement during hookup and lift-off.

*Figure 8-31. Medium Girder Bridge*

### 8-33. Ribbon Bridge Ramp Bay

**a. Applicability.** The following item in Table 8-32 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-32. Ribbon Bridge Ramp Bay**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Ribbon Bridge, Ramp Bay	11,560	25K	3/60	90

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

- (1) Sling set (25,000-pound capacity).
- (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 each load in 15 minutes.

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

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

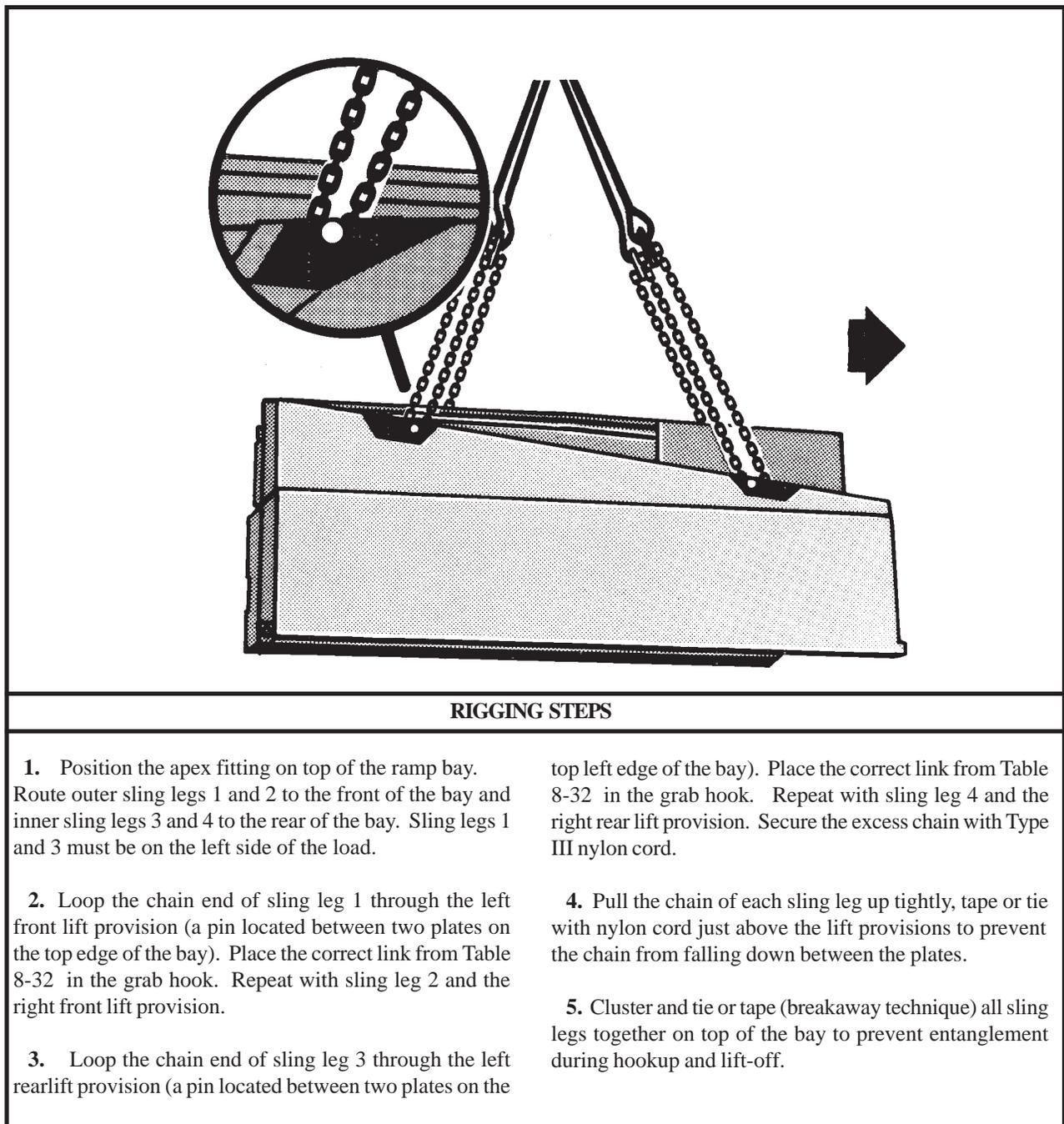
(a) The shorter end of the bay section is the front of the load.

(b) Ensure all the bay latches are securely fastened.

(2) **Rigging.** Rig the load according to the steps in Figure 8-32.

(3) **Hookup.** The hookup team stands on top of the ramp bays. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



*Figure 8-32. Ribbon Bridge Ramp Bay*

## 8-34. Ribbon Bridge Interior Bay

**a. Applicability.** The following item in Table 8-33 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-33. Ribbon Bridge Interior Bay**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Ribbon Bridge, Interior Bay	11,800	25K	3/15	70

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

- (1) Sling set (25,000-pound capacity).
- (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 each load in 15 minutes.

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

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

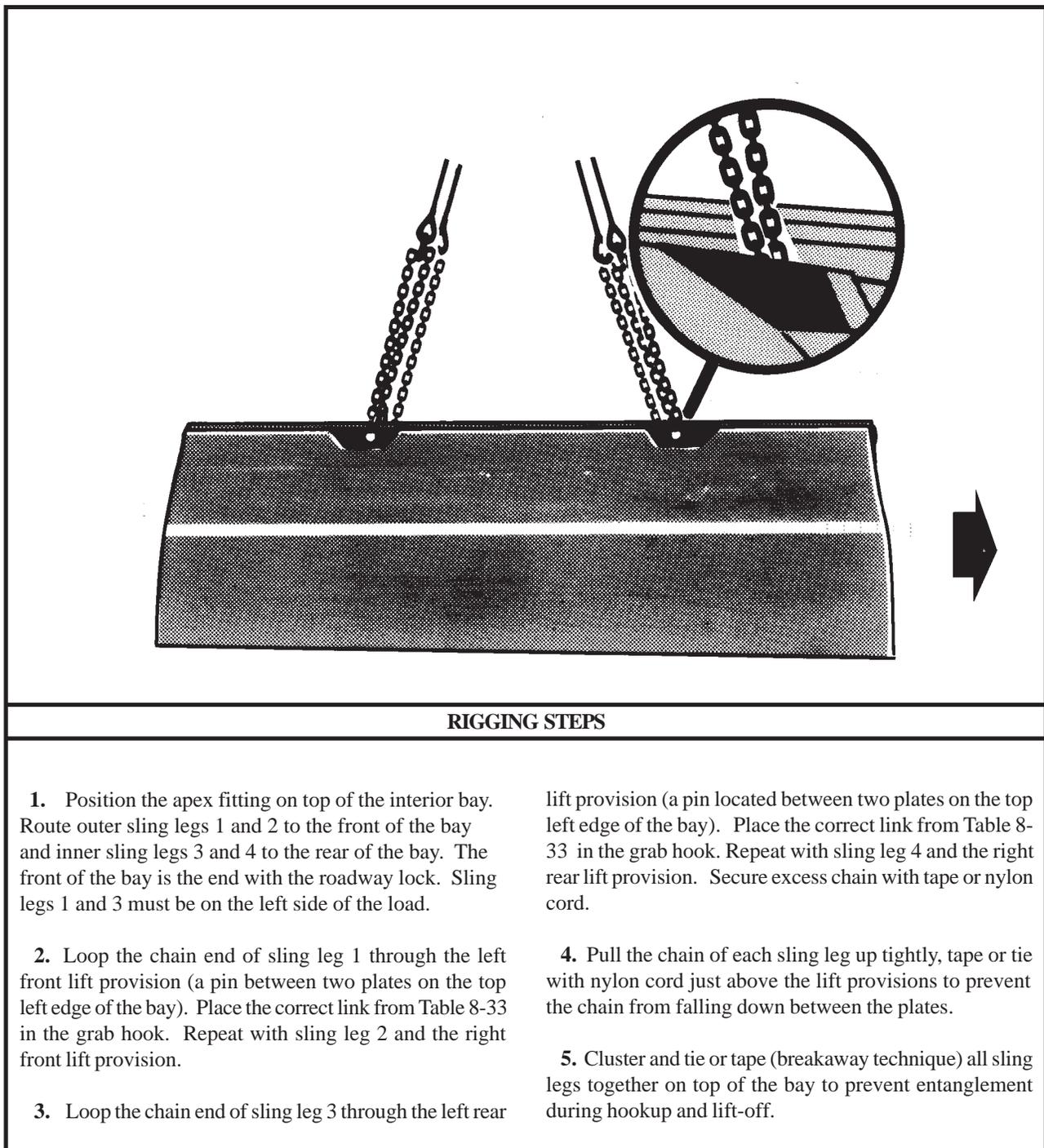
(a) The end with the roadway lock is the front of the load.

(b) Ensure all the bay latches are securely fastened.

(2) **Rigging.** Rig the load according to the steps in Figure 8-33.

(3) **Hookup.** The hookup team stands on top of the interior bays. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



*Figure 8-33. Ribbon Bridge Interior Bay*

### 8-35. Water Purification Unit-Reverse Osmosis (ROWPU)

**a. Applicability.** The following item in Table 8-34 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-34. Water Purification Unit-Reverse Osmosis**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
MC257 Water Purification Unit-Reverse Osmosis, 600 gallons per hour (GPH), Skid Mounted, TAMCN B2064	7,400	15K	5/5	90

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

- (1) Sling set (15,000-pound capacity).
- (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 each load in 15 minutes.

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

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

(a) The water pump end is the front of the load.

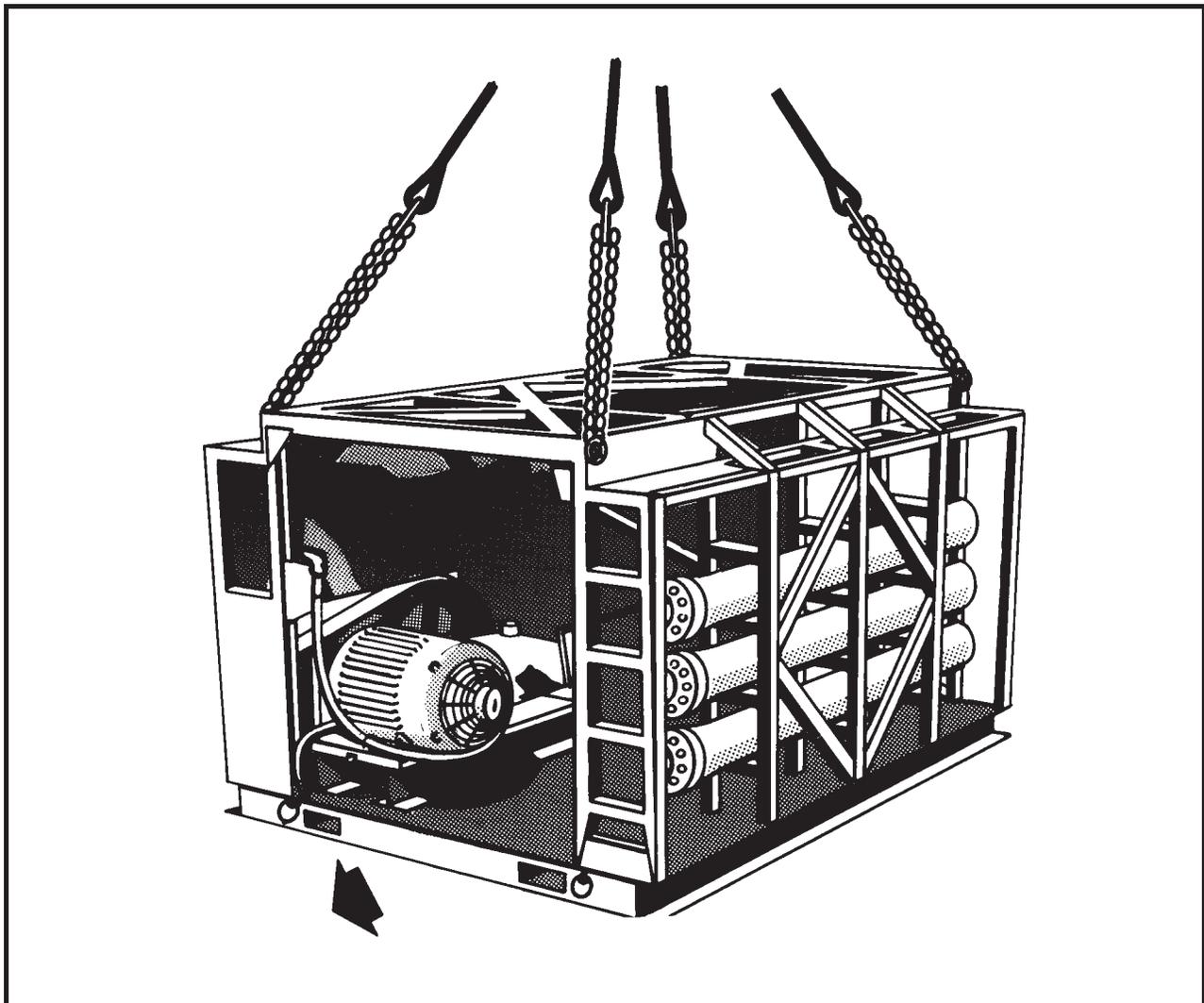
(b) Secure all containers, boxes, and other equipment with tape or Type III nylon cord.

(c) Tape all glass fixtures.

(2) **Rigging.** Rig the load according to the steps in Figure 8-34.

(3) **Hookup.** The hookup team stands on top of the unit. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position apex fitting on top of the ROWPU unit. Route outer sling legs 1 and 2 to the front of the unit and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.
2. Loop the chain end of sling leg 1 through the left front lift ring on the top of the unit. Place the correct link from Table 8-34 in the grab hook. Repeat with sling leg 2 and the right front lift ring.
3. Loop the chain end of sling leg 3 through the left rear lift ring. Place the correct link from Table 8-34 in the grab hook. Repeat with sling leg 4 and the right rear lift ring.
4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the unit to prevent entanglement during hookup and lift-off.

Figure 8-34. Water Purification Unit-Reverse Osmosis (ROWPU)

### 8-36. MS114 WFD Concrete Mixer

**a. Applicability.** The following item in Table 8-35 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-35. MS114 WFD Concrete Mixer**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
MS114WFD Concrete Mixer, TAMCN B1326	4,223	15K	50/30	70

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

- (1) Sling set (15,000-pound capacity).
- (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) Tie-down strap, cargo, CGU-1/B (as required).

**c. Personnel.** Two persons can prepare and rig each 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 hoses, cables, or chains with tape or nylon cord.

(b) Secure the towbar in the raised/locked position.

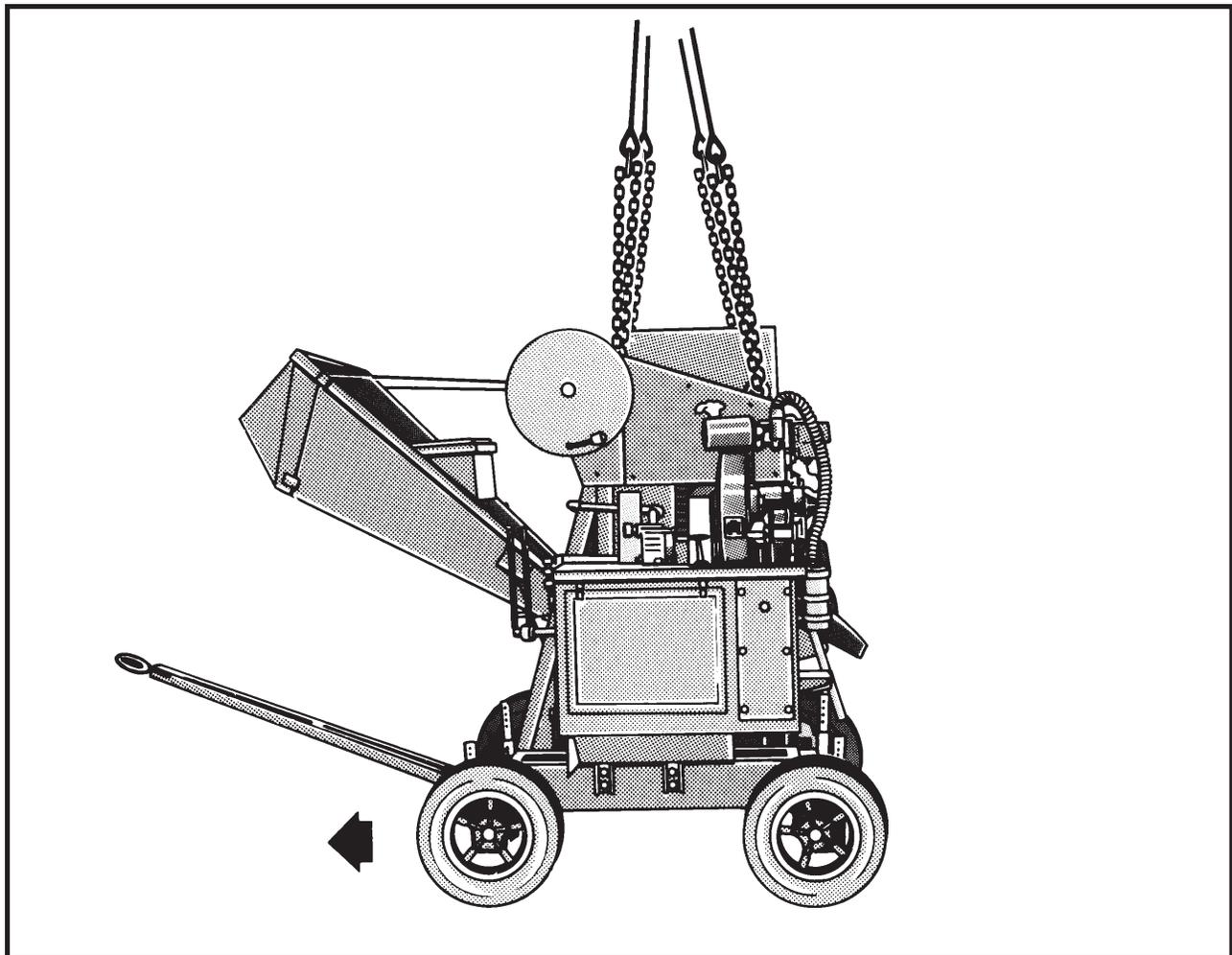
(c) Raise the scoop to the up position and secure the scoop elevating wheel with the tie-down strap.

(d) Since the mixer does not have a hand brake, loop a tie-down strap through a wheel rim and secure it to the frame to keep the wheel from turning.

(2) **Rigging.** Rig the load according to the steps in Figure 8-35.

(3) **Hookup.** The hookup team stands on top of the mixer. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



#### RIGGING STEPS

1. Position the apex fitting on top of the mixer. Route outer sling legs 1 and 2 to the front of the mixer (towbar end) and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.

2. Loop the chain end of sling leg 1 through the left front U-bolt lift provision located on the left top side of the mixer. Place the correct link from Table 8-35 in the grab hook. Route the chain from the inboard side of the provision to the outboard side. Repeat with sling leg 2 and the right front lift provision. Secure excess chain with tape or nylon cord.

3. Loop the chain end of sling leg 3 through the left rear U-bolt lift provision located on the left top side of the mixer. Place the correct link from Table 8-35 in the grab hook. Route the chain from the inboard side of the provision to the outboard side. Repeat with sling leg 4 and the right rear lift provision. Secure excess chain with tape or nylon cord.

4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the mixer to prevent entanglement during hookup and lift-off.

Figure 8-35. MS114 WFD Concrete Mixer

## 8-37. Towed Rollers

**a. Applicability.** The following items in Table 8-36 are certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-36. Towed Rollers**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Roller, Towed, RO3402	4,600	10K	3/30	120
Roller, Hercules, PT-11	3,520	10K	3/3	85

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

- (1) Sling set (10,000-pound capacity).
- (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) Tie-down strap, cargo, CGU-1/B (as required).

**c. Personnel.** Two persons can prepare and rig each load in 10 minutes.

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

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

(a) Secure the drain plugs with tape.

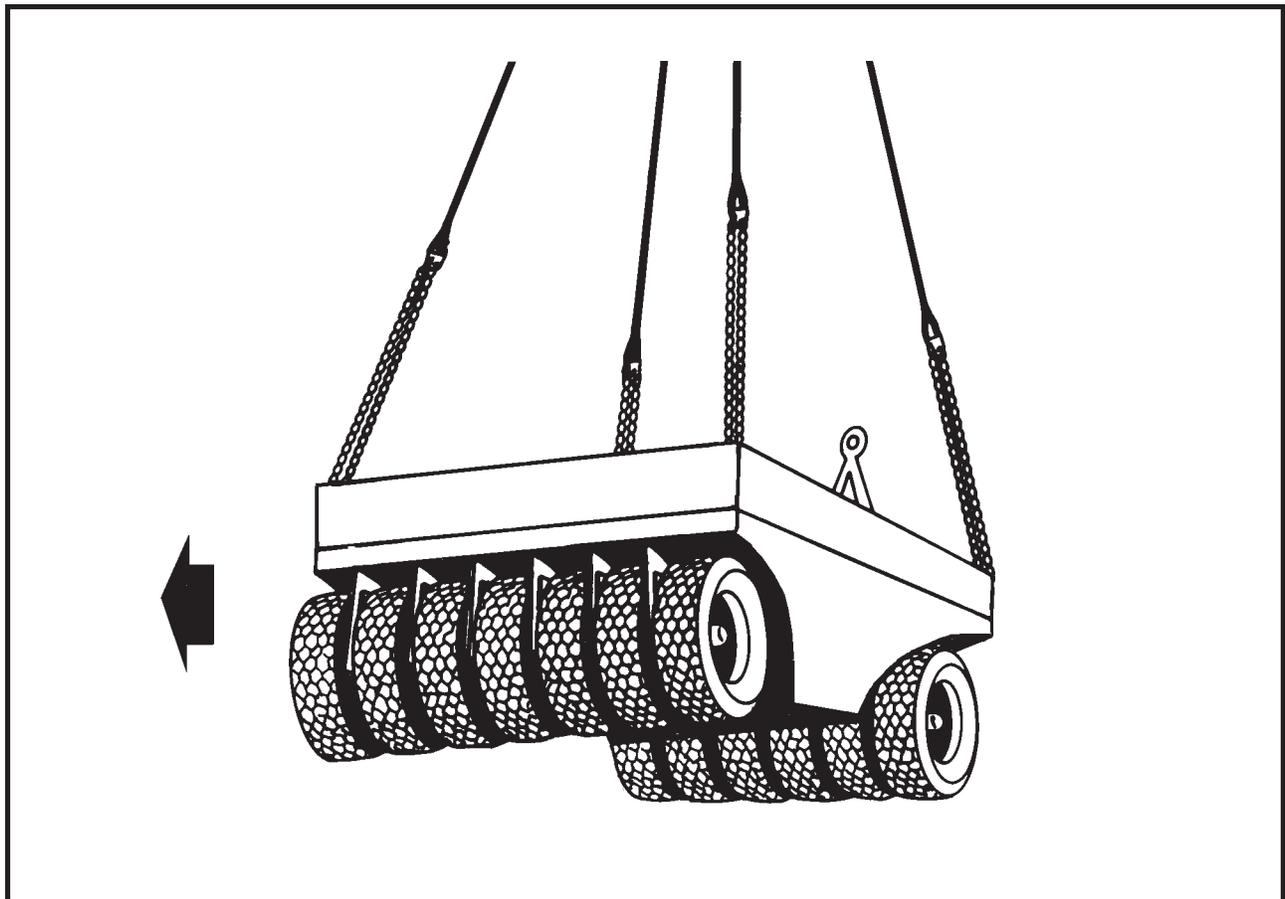
(b) Raise and secure the tongue with tie-down straps.

(2) **Rigging.** Rig the load according to the steps in Figure 8-36.

(3) **Hookup.** The hookup team stands on top of the roller. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

**NOTE: Brief the aircrew to hover to one side of the load and relax the sling tension before releasing the apex fitting to prevent damaging the load.**

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



#### RIGGING STEPS

1. Position the apex fitting on top of the roller. Route outer sling legs 1 and 2 to the front of the roller (lunette end) and inner sling legs 3 and 4 to the rear. Sling legs 1 and 3 must be on the left side of the load.
2. Loop the chain end of sling leg 1 through the left front lift provision located on the left front corner of the roller. Place the correct link from Table 8-36 in the grab hook. Repeat with sling leg 2 and the right front lift provision.
3. Loop the chain end of sling leg 3 through the left rear lift provision located on the left rear corner of the roller. Place the correct link from Table 8-36 in the grab hook. Repeat with sling leg 4 and the right rear lift provision.
4. Cluster and tie or tape (breakaway technique) all sling legs together on top of the roller to prevent entanglement during hookup and lift-off.

*Figure 8-36. Towed Rollers*

### 8-38. Dozer, John Deere, 450G

**a. Applicability.** The following item in Table 8-37 is certified for all helicopters with suitable lift capacity by the US Army Natick Research, Development, and Engineering Center:

**Table 8-37. Dozer, John Deere, 450G**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Dozer, John Deere, 450G	18,080	25K	3/3	100

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

- (1) Sling set (25,000-pound capacity).
- (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 substitute.

**c. Personnel.** Two persons can prepare and rig this load in 15 minutes.

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

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

- (a) Ensure the fuel tank is 3/4 full. Place the fuel cap

in the vented procedure. Ensure the oil filter cap and the battery caps are properly installed.

- (b) Tape the lights and gauges.

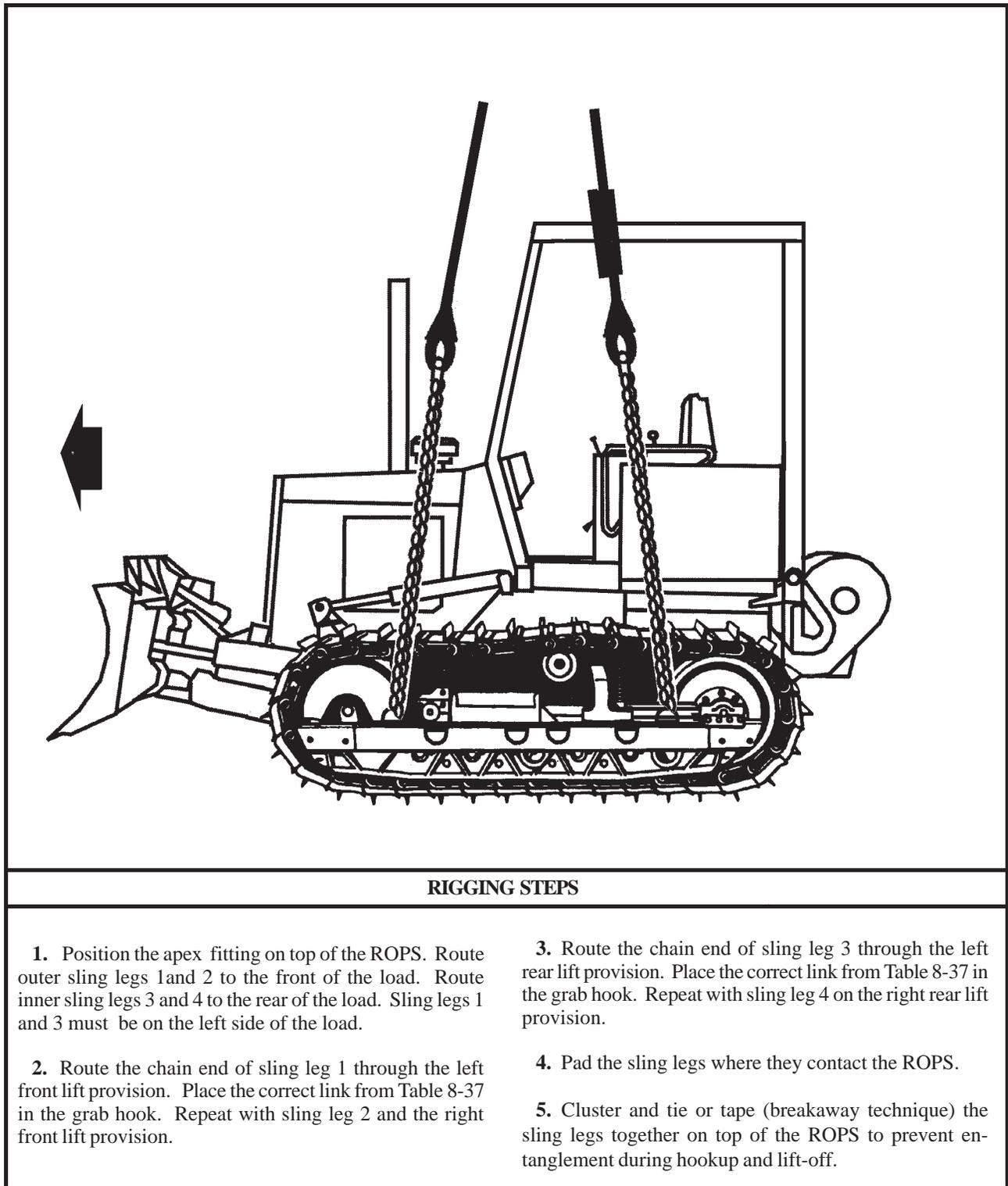
(c) Secure all loose equipment with tape or Type III nylon cord.

(d) Place the transmission in neutral and set the parking brake.

(2) **Rigging.** Rig the load according to the steps in Figure 8-12.

(3) **Hookup.** The hookup team stands on top of the dozer. The static wand person discharges the static electricity with the static wand. The hookup person places the apex fitting onto the aircraft cargo hook. The hookup team then moves clear of the load but 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.

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



*Figure 8-37. Dozer, John Deere, 450G*