

## CHAPTER 15

### SUITABLE SINGLE-POINT RIGGING PROCEDURES FOR WHEELED VEHICLES

#### 15-1. Introduction

This chapter contains rigging procedures for single-point lift of wheeled vehicles that are suitable 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 suitable loads. The suitable single-point rigging procedures for wheeled vehicles are in this section. Para-

graphs 15-2 through 15-6 give detailed instructions for rigging loads.

**NOTE: Reach Pendants may be used on all single point loads. A static discharge person is not required when using a Reach Pendant.**

#### 15-2. M342A2 2 1/2-Ton Dump Truck with Winch

**a. Applicability.** The following item in Table 15-1 is suitable for sling load by all **ARMY** helicopters with suitable lift capacity:

### WARNING

**DO NOT LIFT THIS LOAD WITH THE ORIGINAL VEHICLE LIFT PROVISION**

Table 15-1. M342A2 2 1/2-Ton Dump Truck with Winch

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Truck, Dump, 2 1/2-ton, M342A2	15,770	25K	3/30	85

**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.** One person can prepare and rig this load (after modifying the bed) in 15 minutes.

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

- (1) **Preparation.** Prepare the load using the following steps:
  - (a) Modify the cargo bed. Secure the bed in the down position.
  - (b) Place the transmission in neutral and engage the hand brake.
  - (c) Secure the steering wheel and doors with Type III nylon cord.

(d) Tape the windshield wipers to the windshield.

(e) Secure the hood with Type III nylon cord routed from the grill through the hood latches.

(2) **Rigging.** Rig the load according to the steps in Figure 15-1.

(3) **Hookup.** The hookup team stands in the cargo bed of the truck. 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).

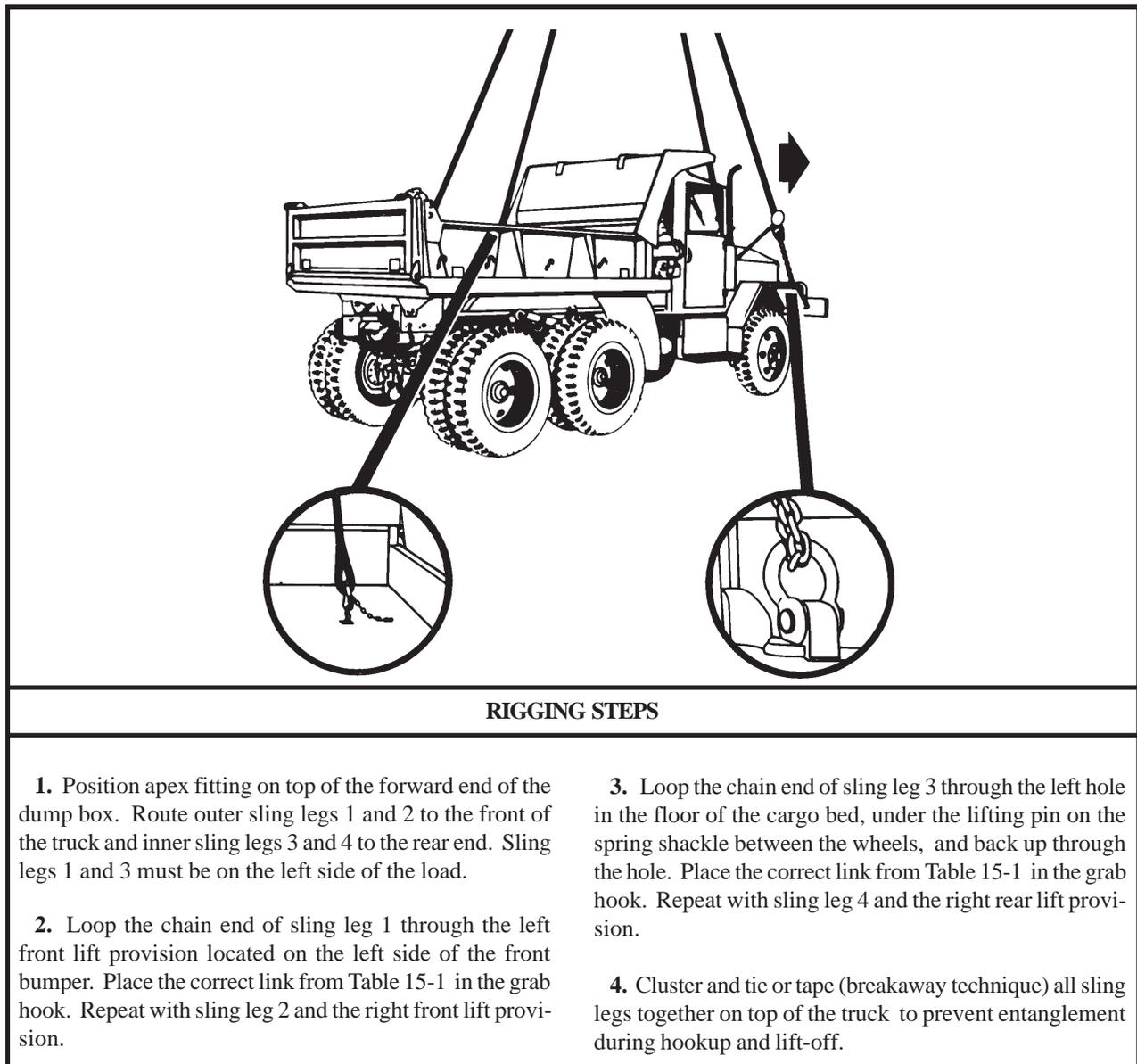


Figure 15-1. M342A2 2 1/2-Ton Dump Truck with Winch

### 15-3. M35A1/2 2 1/2-Ton Cargo Truck with Winch

**a. Applicability.** The following items in Table 15-2 are suitable for sling load by all **ARMY** helicopters with suitable lift capacity:

**WARNING**

**DO NOT LIFT THIS LOAD WITH THE ORIGINAL VEHICLE LIFT PROVISION**

Table 15-2. M35A1/2 2 1/2-Ton Cargo Truck with Winch

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Truck, Cargo, 2 1/2-ton, M35A1, with Winch	13,550	25K	13/3	90
Truck, Cargo, 2 1/2-ton, M35A2, with Winch	13,570	25K	13/3	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.
- (5) Padding, cellulose.
- (6) Tie-down, cargo, CGU-1/B (as required).

**c. Personnel.** Two persons can prepare and rig this load in 25 minutes.

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

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

(a) Remove the bed tarpaulin and bows and secure them in the truck bed with tie-down straps or Type III nylon cord.

(b) Remove the cab tarpaulin, lower and secure the windshield, and secure the tarpaulin over the windshield with Type III nylon cord.

(c) Secure the hood with Type III nylon cord routed from the grill through the hood latches.

(d) Ensure the fuel cap, oil filler cap, radiator cap, and battery caps are properly installed and the battery compartment door is fastened.

(e) Secure the seats and doors with Type III nylon cord.

(f) Place the transmission in neutral and engage the hand brake.

(g) Straighten the front wheels and secure the steering wheel with Type III nylon cord.

(2) **Rigging.** Rig the load according to the steps in Figure 15-2.

(3) **Hookup.** The hookup team stands in the cargo bed of the truck. 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).

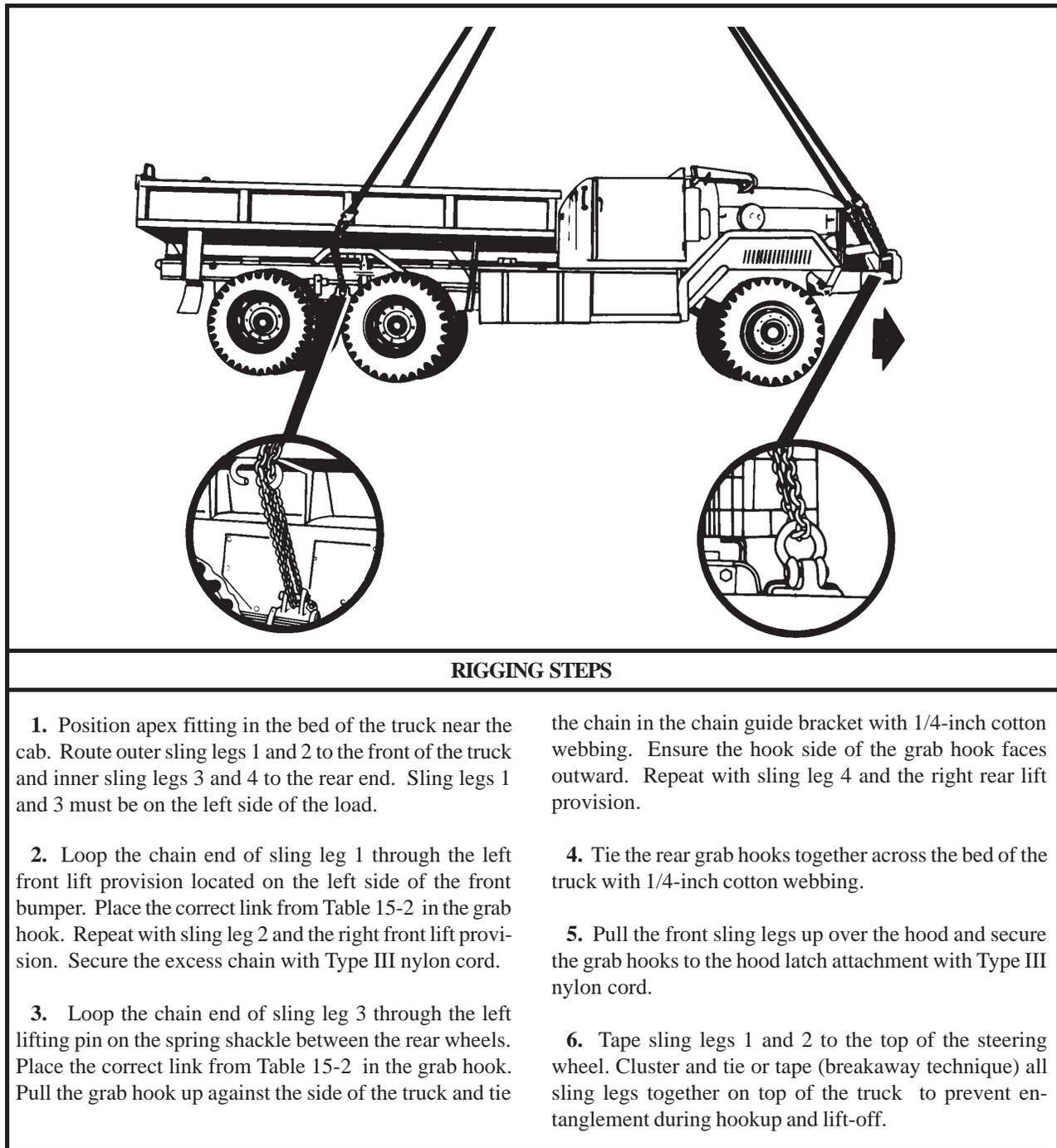


Figure 15-2. M35A1/2 2 1/2-Ton Cargo Truck with Winch

## 15-4. M54A2 5-Ton Cargo Truck with Winch

**a. Applicability.** The following item in Table 15-3 is suitable for sling load by all **ARMY** helicopters with suitable lift capacity:

**WARNING**

**DO NOT LIFT THIS LOAD WITH THE ORIGINAL VEHICLE LIFT PROVISION**

Table 15-3. M54A2 5-Ton Cargo Truck with Winch

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Truck, Cargo, 5-ton, M54A2, with Winch	20,782	25K	3/13	80

**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) Padding, cellulose.
- (6) Tie-down, cargo, CGU-1/B (as required).

**c. Personnel.** Two persons can prepare and rig this load in 25 minutes.

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

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

- (a) Remove the bed tarpaulin and bows and secure them in the truck bed with tie-down straps or Type III nylon cord.
- (b) Remove the cab tarpaulin, lower and secure the

windshield, and secure the tarpaulin over the windshield with Type III nylon cord.

(c) Secure the hood with Type III nylon cord routed from the grill through the hood latches.

(d) Ensure the fuel cap, oil filler cap, radiator cap, and battery caps are properly installed and the battery compartment door is fastened.

(e) Secure the seats and doors with Type III nylon cord.

(f) Place the transmission in neutral and engage the hand brake.

(g) Straighten the front wheels and secure the steering wheel with Type III nylon cord.

**(2) Rigging.** Rig the load according to the steps in Figure 15-3.

**(3) Hookup.** The hookup team stands in the cargo bed of the truck. 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).

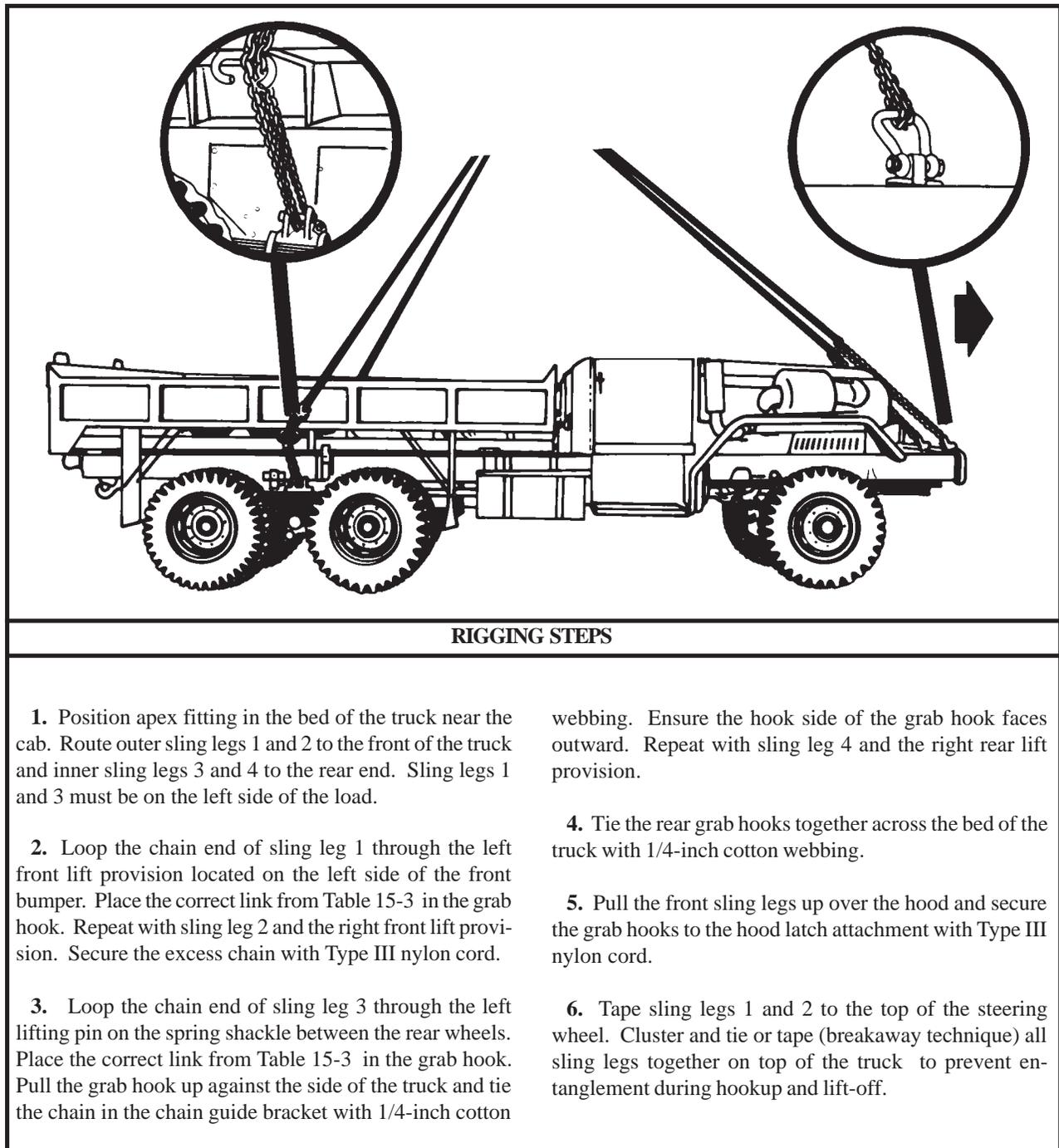


Figure 15-3. M54A2 5-Ton Cargo Truck with Winch

## 15-5. M52A2 or M818 5-Ton Tractor with Winch

**a. Applicability.** The following items in Table 15-4 are suitable for sling load by all **ARMY** helicopters with suitable lift capacity:

**WARNING**

**DO NOT LIFT THIS LOAD WITH THE ORIGINAL VEHICLE LIFT PROVISION**

Table 15-4. M52A2 or M818 5-Ton Tractor with Winch

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Truck, Tractor, 5-ton, M52A2, with Winch	18,430	25K	3/43	85
Truck, Tractor, 5-ton, M818, with Winch	20,107	25K	3/43	85

**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 this load in 15 minutes.

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

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

(a) Place the transmission in neutral and engage the hand brake.

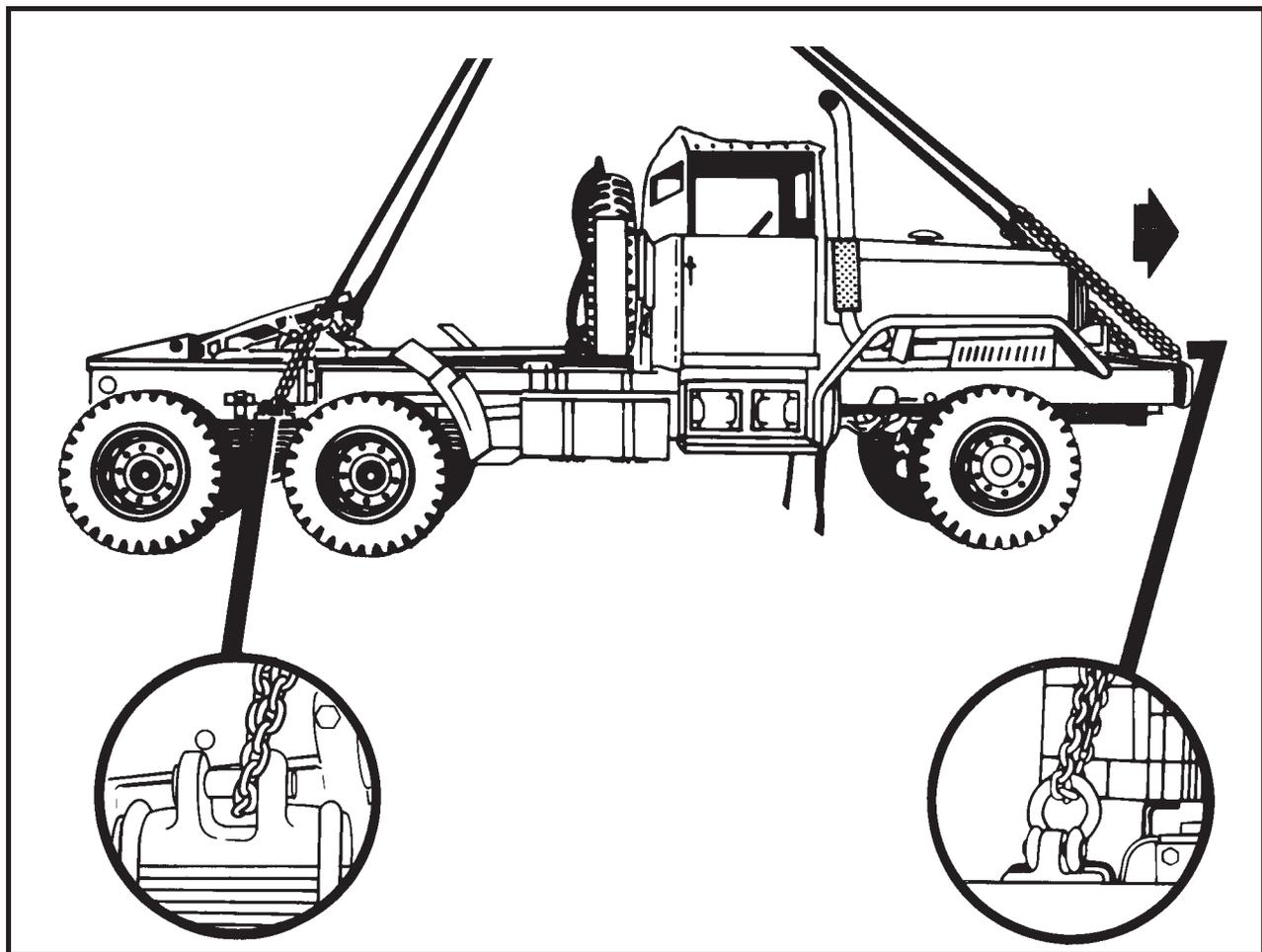
(b) Straighten the front wheels and secure the steering wheel with Type III nylon cord. Secure the doors with Type III nylon cord.

(c) Place the air hoses in the brackets and secure with Type III nylon cord.

(2) **Rigging.** Rig the load according to the steps in Figure 15-4.

(3) **Hookup.** The hookup team stands on the rear of the hood. 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 spare tire. Route outer sling legs 1 and 2 to the front of the truck and inner sling legs 3 and 4 to the rear end. 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 side of the front bumper. Place the correct link from Table 15-4 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

lifting pin on the spring shackle between the rear wheels. Place the correct link from Table 15-4 in the grab hook. Repeat with sling leg 4 and the right rear lift provision. Secure the excess chain with Type III nylon cord.

4. Pull the front sling legs up over the hood and secure the grab hooks to the hood latch attachment with Type III nylon cord.

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

Figure 15-4. M52A2 or M818 5-Ton Tractor with Winch

## 15-6. Crane, Self-Propelled, for Army Aircraft Maintenance and Positioning (SCAMP)

**a. Applicability.** The following item in Table 15-5 is suitable for sling load by all **ARMY** helicopters with suitable lift capacity:

**Table 15-5. Crane, Self-Propelled, for Army Aircraft Maintenance and Positioning (SCAMP)**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/REAR	RECOMMENDED AIRSPEED (KNOTS)
Crane, Self-Propelled, Army Aircraft Maintenance and Positioning	14,600	25K	3/40	85

**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 this load in 10 minutes.

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

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

(a) Attach the block and tackle to the front pintle hook (the cable must be snug).

(b) Rotate the mirrors in toward the cab and tape all the glass.

(c) Secure the engine cover, tow bar, and tow wheels in place with Type III nylon cord.

(d) Secure all loose equipment, doors, or panels with tape or Type III nylon cord.

(e) Place the transmission in neutral and engage the parking brake.

(2) **Rigging.** Rig the load according to the steps in Figure 15-5.

(3) **Hookup.** The hookup team stands between the end of the boom and the engine cover. 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).

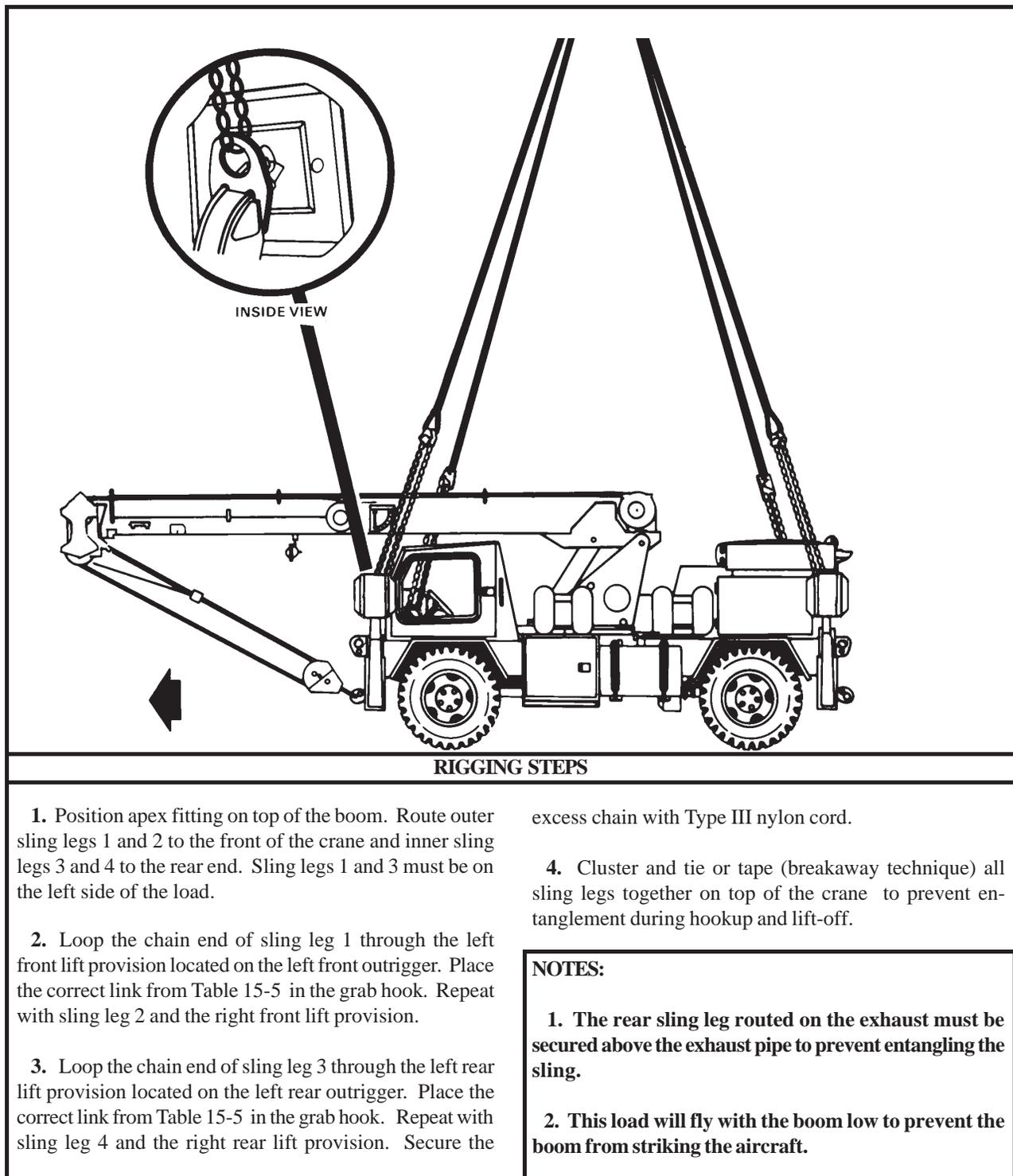


Figure 15-5. Crane, Self-Propelled, for Army Aircraft Maintenance and Positioning (SCAMP)