

## CHAPTER 3

### CERTIFIED DUAL-POINT RIGGING PROCEDURES FOR TRAILERS

#### 3-1. INTRODUCTION

This chapter contains rigging procedures for dual-point trailer loads that have 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 trailers are in this section. Paragraphs 3-2 through 3-18 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.**

#### 3-2. M101A2 3/4-Ton Trailer

**a. Applicability.** The following items in Table 3-1 are certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

**Table 3-1. M101A2 3/4-Ton Trailer**

NOMENCLATURE	CURB WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
M101A2 with Accompanying Load	3,000	10K	3/20	CH-47	100
Command Version 1 Trailer	1,958	10K	3/20	CH-47	100
Command Version 2 Trailer	1,981	10K	3/20	CH-47	100
Len Cable Trailer	2,796	10K	3/20	CH-47	100
NC Support Trailer	2,643	10K	3/20	CH-47	100
Maintenance Trailer #2	1,430	10K	3/20	CH-47	100
Battalion Spares Trailer #1	1,594	10K	3/20	CH-47	100
Battalion Spares Trailer #2	2,206	10K	3/20	CH-47	100
Downsized Direct Support Section Trailer	2,700	10K	3/20	CH-47	100

#### WARNING

**THE M101A2 3/4-TON TRAILER MUST HAVE A GROSS WEIGHT OF 1,575 POUNDS OR MORE. ADD ADDITIONAL WEIGHT OR CARGO TO ANY TRAILER WHICH WEIGHS LESS THAN 1,575 POUNDS. PLACE THE WEIGHT NEAR THE CENTER OF THE TRAILER.**

#### WARNING

**MAXIMUM WEIGHT DURING SLING LOAD OPERATIONS FOR ANY VARIANT OF THE M101A2 3/4-TON TRAILER IS 3,000 POUNDS.**

**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.

(4) Webbing, cotton, 1/4-inch.

(5) Tie down, CGU-1B or dacron lashing and load binder.

**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) Fasten the tailgate in the open position with the chains on each side hooked through the keeper.

(b) Remove the front rack and place it in the bed of the trailer. Place the accompanying load on top of the front rack. Secure the accompanying load to the trailer using tie-down straps. Route the straps diagonally across the load from the tailgate hinge to the front lifting shackles.

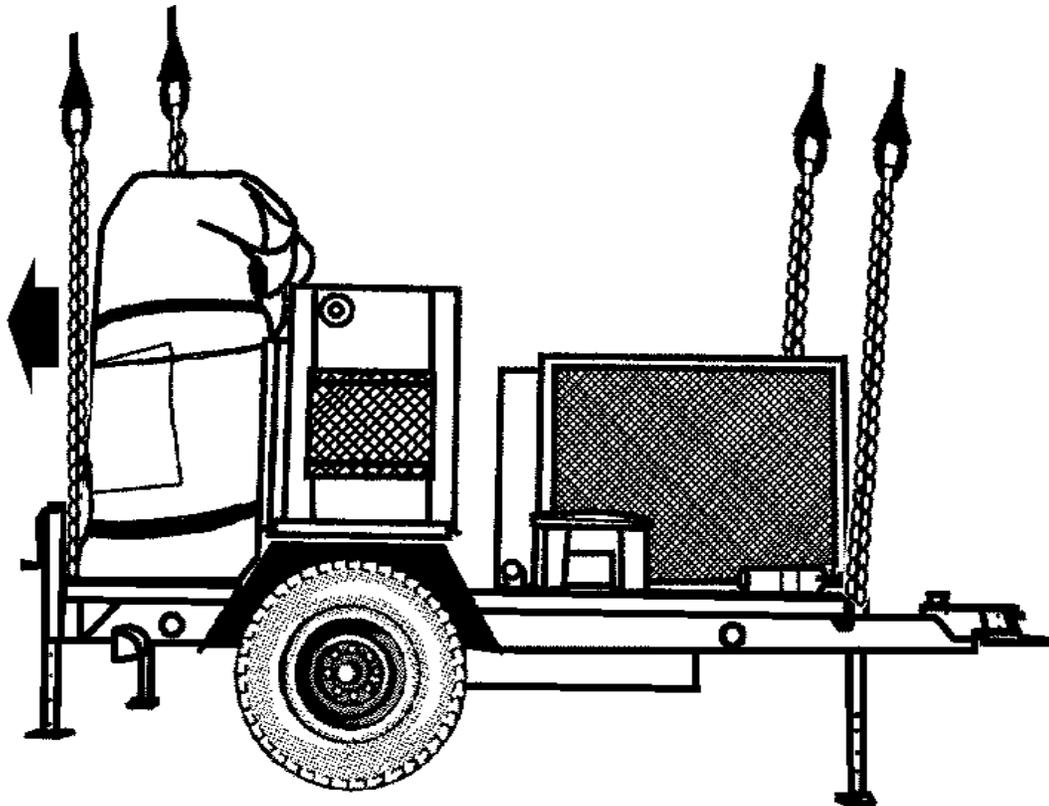
(c) Tape or tie the light cable firmly to the top of the drawbar.

(d) Ensure the parking brake is set.

(2) **Rigging.** Rig the load according to the steps in Figure 3-1.

(3) **Hookup.** The hookup teams stand in the bed of the trailer. The static wand person discharges the static electricity with the static wand. 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 team then carefully dismounts the vehicle 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.

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



#### RIGGING STEPS

1. Connect 2 sling legs to apex fitting number 1. Position the apex fitting on top of the trailer.
2. Loop the chain end of the sling legs through their respective lift provisions located on the outer ends of the front bumper (generator end). Place the correct link from Table 3-14 in the grab hook.
3. Connect 2 sling legs to apex fitting number 2. Position the apex fitting on top of the trailer.
4. Loop the chain end of the sling legs through their respective lift provisions located on the outer ends of the rear bumper. Place the correct link from Table 3-14 in the grab hook. Secure all excess chain with tape or Type III nylon cord.
5. Pad the chain/sling where they contact the trailer or generator.
6. Cluster and tie or tape (breakaway technique) the sling legs in each sling set together to prevent entanglement during hookup and lift-off.

*Figure 3-14. Deployable Print Production Center on COPS Trailer*

### 3-16. XM1112 400 Gallon Water Trailer

**a. Applicability.** The following item in Table 3-15 is certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

**Table 3-15. XM1112 400 Gallon Water Trailer**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
XM 1112 400 Gallon Water Trailer, Empty	3,860	10K	20/3	CH-47	130

**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 10 minutes.

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

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

- (a) Secure all loose chains, hoses, and cables to the trailer drawbar with tape or Type III nylon cord.

(b) Ensure the tongue wheel is in the down and locked position.

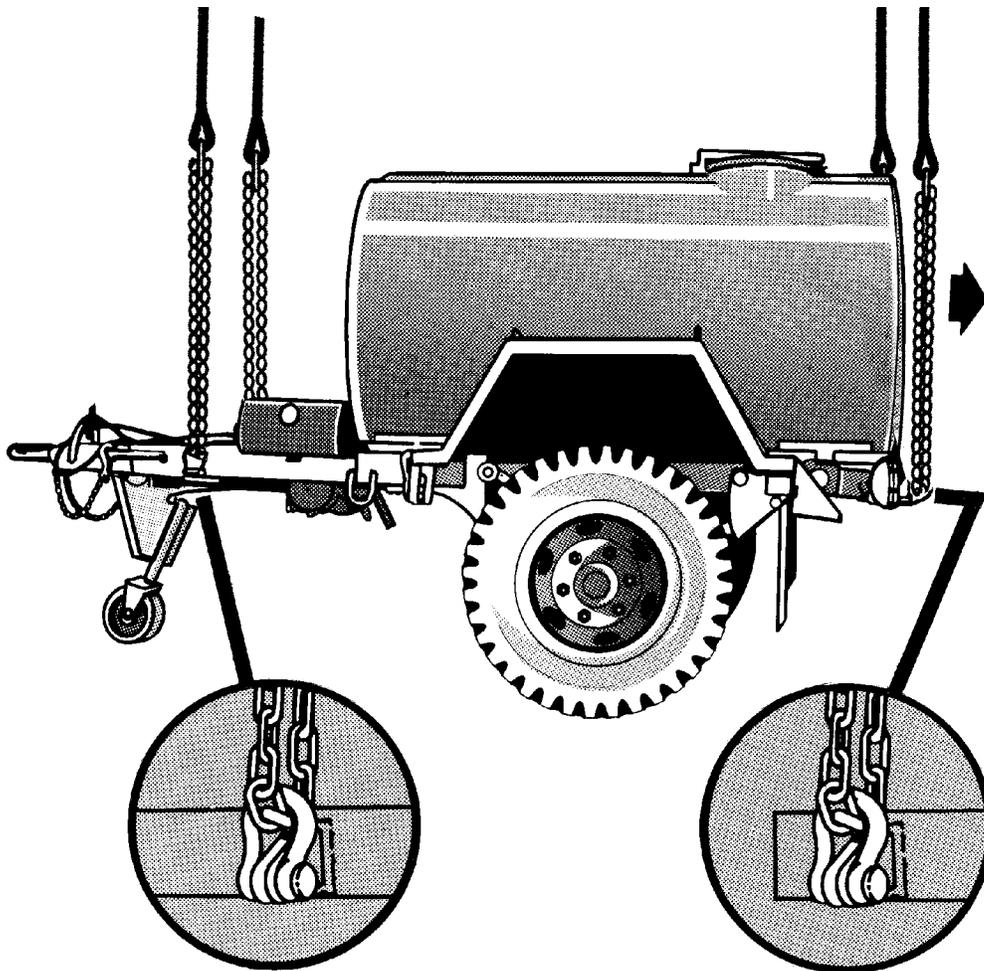
(c) Close and secure the tank lid.

(d) Engage the parking brake.

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

(3) **Hookup.** The hookup teams stand on the trailer fenders or on the front of the trailer. The static wand person discharges the static electricity with the static wand. 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 team then carefully dismounts the trailer 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.

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



#### RIGGING STEPS

1. Connect 2 sling legs to apex fitting number 1. Position the apex fitting on top of the forward end (lunette end) of the trailer.
2. Loop the chain end of the sling legs through their respective lift provisions located in the drawbar of the trailer. Place the correct link from Table 3-15 in the grab hook.
3. Connect 2 sling legs to apex fitting number 2. Position the apex fitting on top of the aft end of the trailer.
4. Loop the chain end of the sling legs through their respective lift provisions located on the rear bumper of the trailer. Place the correct link from Table 3-15 in the grab hook.
5. Secure all excess chain with tape or Type III nylon cord.
6. Cluster and tie or tape (breakaway technique) the sling legs in each sling set together to prevent entanglement during hookup and lift-off.

*Figure 3-15. XM1112 Gallon Water Trailer*

### 3-17. M105A3 Trailer

**a. Applicability.** The following item in Table 3-16 is certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

**Table 3-16. M105A3 Trailer**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
M105A3 Trailer, Empty	2,600	10K	40/3	CH-47	120
M105A3 Trailer, Loaded	5,580	10K	40/3	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 10 minutes.

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

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

(a) Raise the trailer's jack stand so the pintle is on the ground.

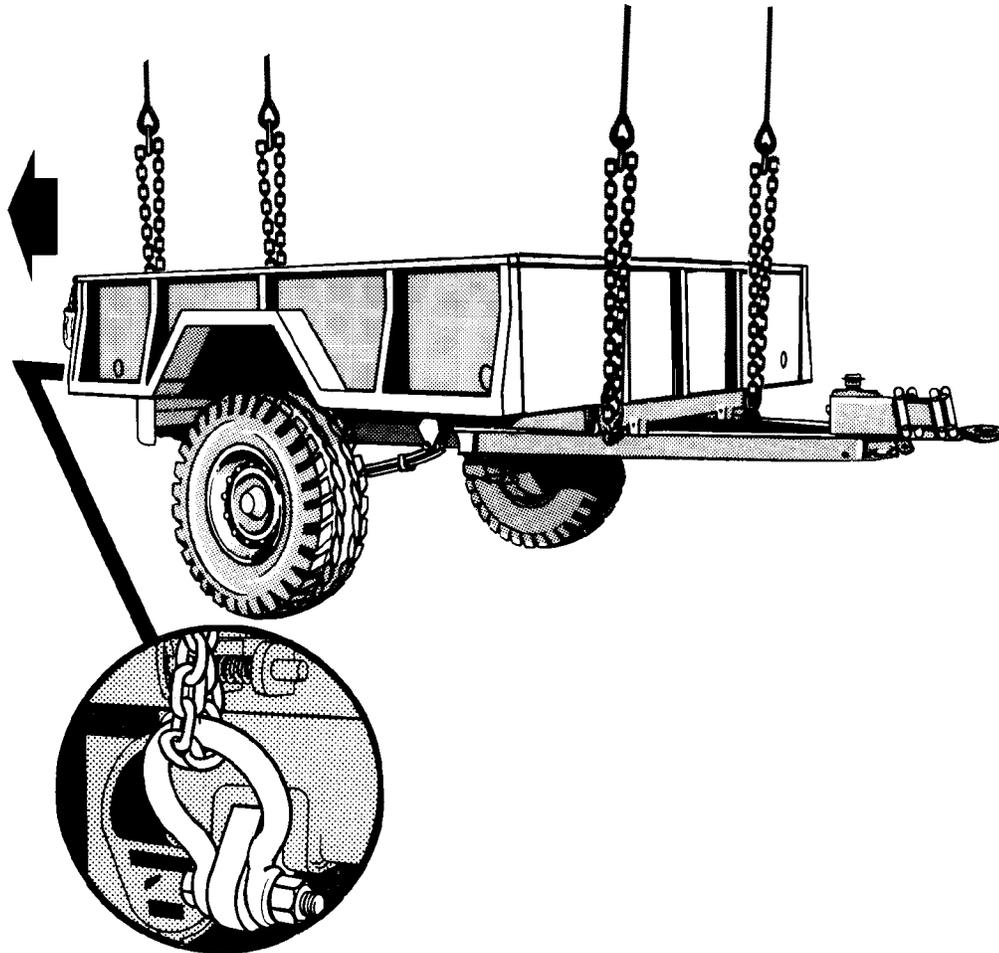
(b) Secure all loose chains, hoses, and cables to the trailer drawbar with tape or Type III nylon cord.

(c) Engage the parking brake.

(2) **Rigging.** Rig the load according to the steps in Figure 3-16.

(3) **Hookup.** The hookup teams stand in the bed of the trailer. The static wand person discharges the static electricity with the static wand. 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 team then carefully dismounts the trailer 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.

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



#### RIGGING STEPS

1. Connect 2 sling legs to apex fitting number 1. Position the apex fitting on top of the forward end (lunette end) of the trailer.
2. Loop the chain end of the sling legs through their respective lift provisions located in the front of the trailer. Place the correct link from Table 3-16 in the grab hook.
3. Connect 2 sling legs to apex fitting number 2. Position the apex fitting on top of the aft end of the trailer.
4. Loop the chain end of the sling legs through their respective lift provisions located on the aft end of the trailer. Place the correct link from Table 3-16 in the grab hook.
5. Secure all excess chain with tape or Type III nylon cord.
6. Cluster and tie or tape (breakaway technique) the sling legs in each sling set together to prevent entanglement during hookup and lift-off.

*Figure 3-16. M105A3 Trailer*

### 3-18. M1082 Light Medium Tactical Vehicle (LMTV) and M1095 Medium Tactical Vehicle (MTV) Trailers

**a. Applicability.** The following items in Table 3-17 are certified for the helicopter(s) listed in the following table by the US Army Soldier Systems Center:

**Table 3-17. M1082 Light Medium Tactical Vehicle (LMTV) and M1095 Medium Tactical Vehicle (MTV) Trailers**

NOMENCLATURE	MAX WEIGHT (POUNDS)	SLING SET	LINK COUNT FRONT/ REAR	TYPE OF AIRCRAFT	RECOMMENDED AIRSPEED (KNOTS)
M1082 LMTV Trailer	11,510	25K	10/3	CH-47	120
M1095 MTV Trailer	15,780	25K	20/3	CH-47	70

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

- (1) Sling set (25,000-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 10 minutes.

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

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

- (a) Position the trailer's jack stand in the down position so the trailer sets level.
- (b) Secure all loose chains, hoses, and cables to the trailer drawbar with tape or Type III nylon cord.
- (c) Engage the parking brake.

**(d)** Extend the lift provision bars to the widest position and lock into place with the locking pins. Secure the locking pins in place with tape.

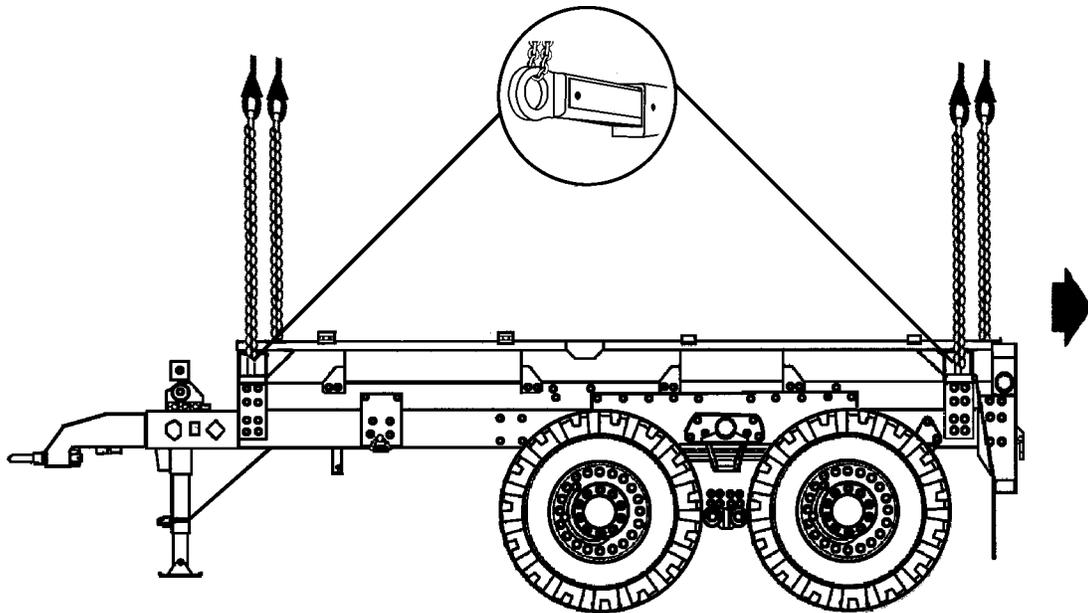
**Note: Ensure the lift eyes on the lift provision bars are perpendicular to the ground.**

**(e)** Remove the side and end panels and stow in the storage boxes under the bed of the trailer. Secure the storage latches with tape.

**(2) Rigging.** Rig the load according to the steps in Figure 3-17.

**(3) Hookup.** The hookup teams stand in the bed of the trailer. The static wand person discharges the static electricity with the static wand. 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 team then carefully dismounts the trailer 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.

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



#### RIGGING STEPS

1. Connect 2 sling legs to apex fitting number 1. Position the apex fitting on top of the forward end (lunette end) of the trailer.
2. Loop the chain end of the sling legs through their respective lift provision bar located on the front end (lunette end) of the trailer. Place the correct link from Table 3-17 in the grab hook.
3. Connect 2 sling legs to apex fitting number 2. Position the apex fitting on top of the aft end of the trailer.
4. Loop the chain end of the sling legs through their respective lift provision bar located on the aft end of the trailer. Place the correct link from Table 3-17 in the grab hook.
5. Secure all excess chain with tape or Type III nylon cord.
6. Cluster and tie or tape (breakaway technique) the sling legs in each sling set together to prevent entanglement during hookup and lift-off.

*Figure 3-17. M1082 Light Medium Tactical Vehicle (LMTV) and M1095 Medium Tactical Vehicle (MTV) Trailers*