



# Brake Kit

## Dingo TX 420 & 425 Compact Utility Loader

Part No. 106-7580 & 106-7581

Form No. 3329-412

### Installation Instructions

## Loose Parts

**Note:** Determine the left and right sides of the machine from the normal operating position.

Description	Qty.	Use
Drive wheel <sup>1</sup>	1	Removing the rear wheel
Brake rim <sup>2</sup>	1	
Wheel hub <sup>2</sup>	1	
Brake plate	1	Removing the brake assembly
Brake block	1	Installing the brake block
Hex socket screw, 3/8 x 1-1/4 inch	2	Installing the brake assembly
Lock washer, 3/8 inch	2	

<sup>1</sup>Found in 106-7580 only

<sup>2</sup>Found in 106-7581 only



### Warning



This kit requires parts to be welded to the chassis. Welding can expose you to a number of hazards including toxic fumes, smoke, dust, burns, fires, explosions, electric shock, radiation, noise, and heat stress which can cause serious injury and death.

- Welding portions of the kit should be performed by a trained welder.
- Weld in a adequately ventilated area with suitable fire extinguishing equipment readily available.
- Weld in a firesafe workplace. This can be accomplished by welding behind firesafe barriers or curtains and on concrete or other firesafe flooring. Remove or protect all combustibles from ignition sources.
- Wear proper protective clothing when welding, such as fire retardant coveralls. Protect your hands with leather gauntlet gloves. Feet should be protected by high top leather shoes, preferably safety shoes.
- Protect your eyes when welding. A welding helmet or hand shield with filter plate and cover plate is mandatory to protect the eyes while welding. Transparent goggles or safety glasses should be worn at all times.

# Installation

## Preparing the Unit

1. Lower the loader arms, stop the engine, and remove the key.
2. Open the rear access cover and disconnect the negative battery cable.

## Removing the Track (Dingo TX 420)

1. Lift/support the side of the unit to be worked on so that the track is three to four inches (7.6 to 10 cm.) off of the ground.
2. Remove the tensioning screw locking bolt and nut (Fig. 1).

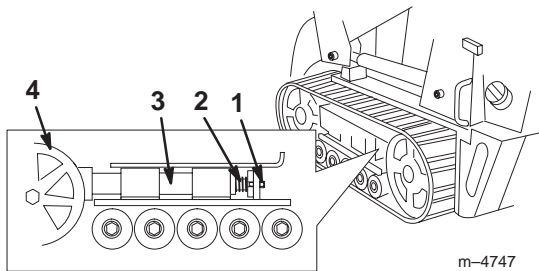


Figure 1

- |                     |                  |
|---------------------|------------------|
| 1. Locking bolt     | 3. Tension tube  |
| 2. Tensioning screw | 4. Tension wheel |

3. Using a 1/2 inch drive socket, release the drive tension by turning the tensioning screw clockwise (Fig. 2).

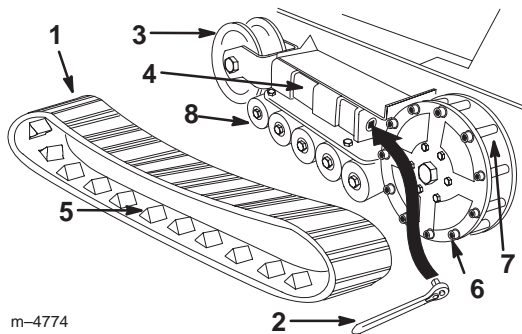


Figure 2

Dingo TX 420

- |                   |                 |
|-------------------|-----------------|
| 1. Track          | 5. Track lug    |
| 2. 1/2 in. socket | 6. Drive wheel  |
| 3. Tension wheel  | 7. Wheel spacer |
| 4. Fork tube      | 8. Road wheels  |

4. Push the tension wheel toward the rear of the unit to move the fork tube against the frame (Fig. 2). (If it does not touch the frame, continue turning the tensioning screw until it does.)
5. Begin removing the track at the top of the tension wheel, peeling it off of the wheel while rotating the track forwards.
6. When the track is off of the tension wheel, remove it from the drive wheel and road wheels (Fig. 2).
7. Repeat steps 1–6 for the opposite track when installing a second brake kit.

## Removing the Track (Dingo TX 425)

1. Lift/support the side of the unit to be worked on so that the track is three to four inches (7.6 to 10 cm.) off of the ground.
2. Remove the tensioning screw locking bolt and nut (Fig. 1).
3. Using a 1/2 inch drive socket, release the drive tension by turning the tensioning screw clockwise (Fig. 3).

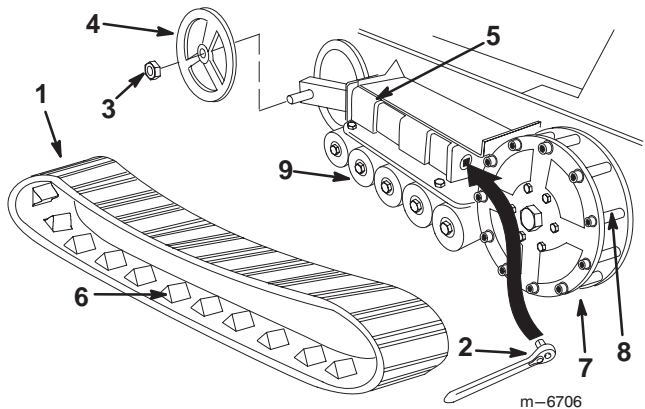


Figure 3

Dingo TX 425

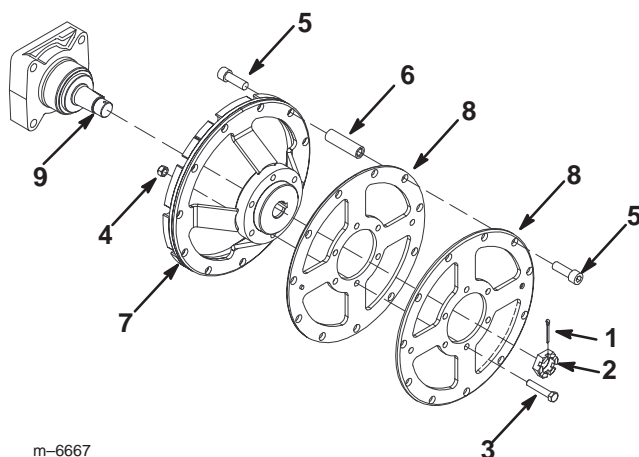
- |                        |                 |
|------------------------|-----------------|
| 1. Track               | 6. Track lug    |
| 2. 1/2 in. socket      | 7. Drive wheel  |
| 3. Tension wheel nut   | 8. Wheel spacer |
| 4. Outer tension wheel | 9. Road wheels  |
| 5. Fork tube           |                 |

4. Push the tension wheel toward the rear of the unit to move the fork tube against the frame (Fig. 3). (If it does not touch the frame, continue turning the tensioning screw until it does.)
5. Remove nut securing outer tension wheel and remove wheel.

6. Begin removing the track at the top of the tension wheel, peeling it off of the wheel while rotating the track forwards.
7. When the track is off of the tension wheel, remove it from the drive wheel and road wheels (Fig. 3).
8. Repeat steps 1–6 for the opposite track when installing a second brake kit.

## Removing the Rear Wheel (Dingo TX 420)

1. Remove the cotter pin and wheel nut. Remove the rear wheel assembly from the motor shaft. (Fig. 4)

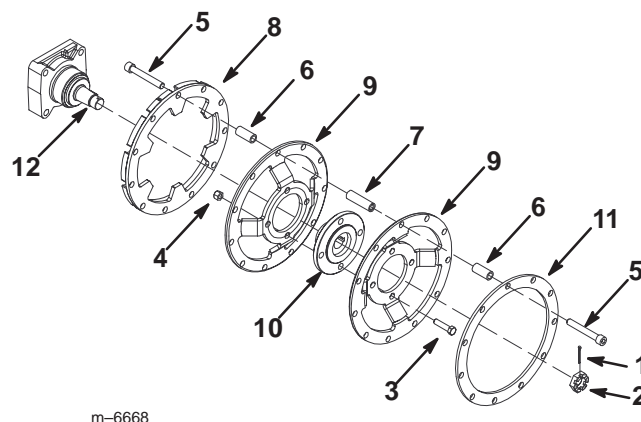


**Figure 4**

- |                                       |                |
|---------------------------------------|----------------|
| 1. Cotter pin                         | 6. Spacer      |
| 2. Wheel nut                          | 7. Drive wheel |
| 3. Bolt, 3/8 x 2 inch                 | 8. Wheel plate |
| 4. Nut, 3/8 inch                      | 9. Motor shaft |
| 5. Hex socket screw, 1/2 x 1-1/2 inch |                |
2. Disassemble the rear wheel by removing the 22 hex socket screws and spacers securing the outer ring of the wheel assembly, and then remove the six bolts and nuts on the inner ring of the wheel assembly (Fig. 4).
  3. Save the fasteners, spacers, and the wheel plates.
  4. Discard the drive wheel.
  5. Assemble the wheel installing the new drive wheel.
  6. Torque the hex socket screws and the inner bolts to 27 to 33 ft-lb (37 to 45 N·m).
  7. Set the wheel assembly, cotter pin, and wheel nut aside.
  8. Repeat steps 1-7 for opposite side when installing a second brake kit.

## Removing the Rear Drive Wheel (Dingo TX 425)

1. Remove the cotter pin and motor wheel nut. Remove the rear wheel assembly from the motor shaft. (Fig. 5)



**Figure 5**

- |                                       |                 |
|---------------------------------------|-----------------|
| 1. Cotter pin                         | 7. Spacer, long |
| 2. Wheel nut                          | 8. Brake rim    |
| 3. Bolt, 1/2 x 1-3/4 inch             | 9. Drive wheel  |
| 4. Nut, 1/2 inch                      | 10. Wheel hub   |
| 5. Hex socket screw, 1/2 x 1-1/2 inch | 11. Wheel plate |
| 6. Spacer, short                      | 12. Motor shaft |
2. Disassemble the rear wheel by removing the 22 hex socket screws, long spacers, and short spacers securing the outer ring of the wheel assembly, and then remove the four bolts and nuts on the inner ring of the wheel assembly (Fig. 5).
  3. Save the fasteners, spacers, drive wheels, and wheel plate.
  4. Discard the brake rim assembly and wheel hub.
  5. Assemble the wheel, installing the new brake rim assembly and wheel hub.
  6. Torque the hex socket screws and the inner bolts to 67 to 83 ft-lb (91 to 113 N·m).
  7. Set the wheel assembly, cotter pin, and wheel nut aside.
  8. Repeat steps 1-7 for opposite side when installing a second brake kit.

# Removing Gas Tank and Battery

Remove the gas tank to access the brake assemblies and prepare the machine for welding.

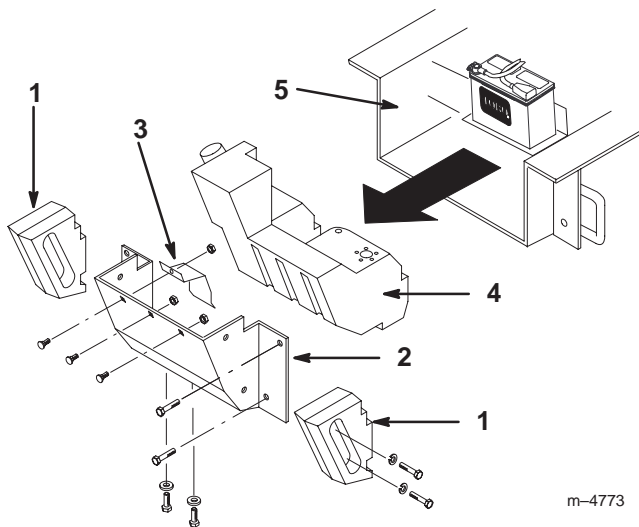
## Removing the Gas Tank

**! Danger !**

In certain conditions, gasoline is extremely flammable and highly explosive. A fire or explosion from gasoline can burn you and others and can damage property.

- Remove the fuel tank outdoors in an open area. Wipe up any gasoline that spills.
- Do not remove the fuel tank near an open flame or where gasoline fumes may be ignited by a spark.
- Do not smoke while handling the fuel tank.

1. Remove the bolts, washers, and lock washers securing the two side weights, removing the weights (Fig. 6).



**Figure 6**

1. Side weights
  2. Rear panel
  3. Fuel tank bracket
  4. Fuel tank
  5. Chassis
2. Remove the three carriage bolts and washers from the battery base and the fuel tank bracket, removing the bracket (Fig. 6).
  3. Remove the six nuts and bolts securing the rear panel, removing the panel (Fig. 6).
  4. Loosen the tank cap to relieve pressure.
  5. Place a clamp on the fuel line, two inches from where it comes out of the fuel tank.

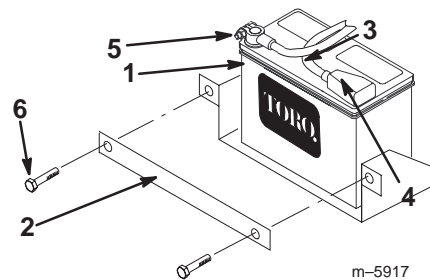
6. Slide the fuel tank to the rear (Fig. 6).
7. Disconnect the fuel line.
8. Disconnect the two wires leading to the right side of the tank.
9. Carefully remove the tank and set it upright to keep from spilling the gasoline.
10. Move the tank a safe distance away from the work area.
11. Wipe up any flammable fluids.

## Removing the Battery

**! Warning !**

Battery posts, terminals, and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. *Wash hands after handling.*

1. Remove the bolts, nuts, and clamp securing the battery (Fig. 7).



**Figure 7**

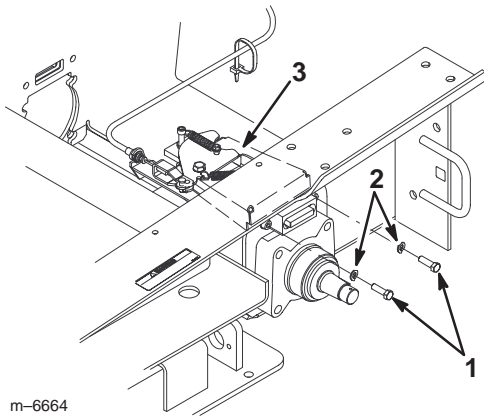
- |                   |                   |
|-------------------|-------------------|
| 1. Battery        | 4. Rubber cover   |
| 2. Clamp          | 5. Negative cable |
| 3. Positive cable | 6. Bolts and nuts |

2. Tilt the top of the battery rearward and slide it out of the traction unit.

**Important** Do not allow the battery posts to touch the frame or hydraulic lines or it may cause sparks.

## Removing the Brake Assembly

1. Remove the bolts and lock washers securing the brake assembly to the chassis and set aside for later use (Fig. 8).

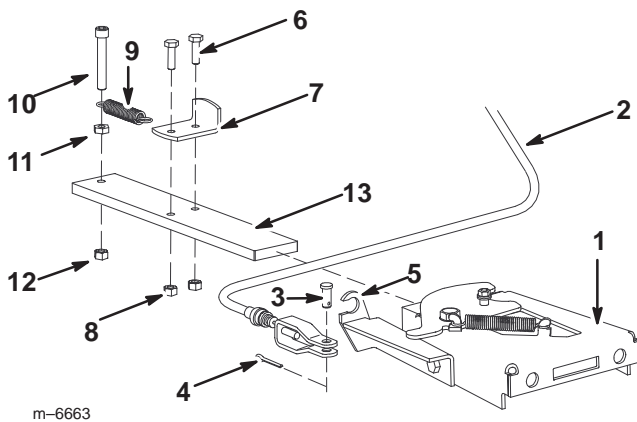


**Figure 8**

Brake assembly and chassis shown from the left side.

- |                 |                   |
|-----------------|-------------------|
| 1. Bolts        | 3. Brake assembly |
| 2. Lock washers |                   |

2. Remove the cotter and clevis pin from the brake cable (Fig 9).



**Figure 9**

- |                         |                                     |
|-------------------------|-------------------------------------|
| 1. Brake plate housing  | 8. Locknut, 1/4 inch                |
| 2. Brake cable          | 9. Extension spring                 |
| 3. Clevis pin           | 10. Hex socket screw, 5/16 x 2 inch |
| 4. Cotter pin           | 11. Jam nut, 5/16 inch              |
| 5. Cable hook           | 12. Locknut, 5/16 inch              |
| 6. Bolt, 1/4 x 5/8 inch | 13. Brake plate                     |
| 7. Brake stop           |                                     |

3. Remove the cable from the bracket hook as shown in Figure 9.
4. Remove the brake assembly.

5. Repeat steps 1-4 the opposite brake assembly when installing second brake kit.

## Installing New Brake Plates

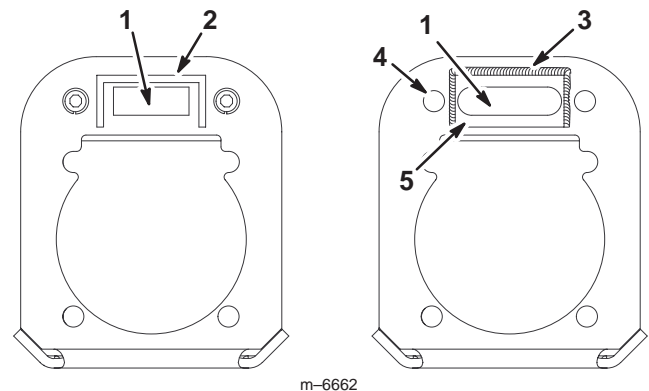
Perform the following procedure for both assemblies when installing a second brake kit.

1. Remove the hex socket head bolt, jam nut, and locknut as shown in Figure 9.
2. Remove the two bolts and locknuts securing the brake stop to the plate.
3. Slide the plate out and discard it.
4. Slide the new plate into the assembly.
5. Replace the brake stop and fasteners.
6. Replace the hex socket head screw, jam nut, and locknut. Be sure to attach the extension spring as you assemble the fasteners and install them to the brake plate.
7. Set the assembly aside for later use.

## Removing the Brake Channel

**Note:** Avoid damaging the chassis or wheel motor when removing the brake channel.

1. With an appropriate tool, cut off old brake block (Fig. 10).



**Figure 10**

- |                  |                    |
|------------------|--------------------|
| 1. Brake channel | 4. Socket holes    |
| 2. Brake block   | 5. New brake block |
| 3. Weldment      |                    |

2. Grind or file down the remaining channel to create a clean and level surface.
3. Wipe down surface to remove loose debris.
4. Repeat steps 1-3 for the opposite side if installing a second brake kit.

## Installing the Brake Block

1. Attach the brake cable to the assembly by installing the cotter and clevis pins and by hooking the line into the bracket at the clip ring as shown in Figure 9.
2. Install a brake assembly into position using the fasteners removed previously (Fig. 9).
3. Engage the parking brake to extend the brake plate.
4. Place the new brake block over the brake plate to line up the block between, and level with, the two surrounding socket holes (Fig. 10).
5. Spot weld the block into position on the surface of the chassis.
6. Disengage the parking brake.
7. Remove the bolts and lock washers securing the brake assembly. Discard the fasteners.

**Note:** The brake assembly stay in position while the new brake block is being welded.

8. Weld the new brake block to the frame with a quarter inch fillet on the left, top and right sides of the block as shown in Figure 10.

**Important** Do not weld the brake block out of position or allow the weldment to cover the surrounding bolt holes.

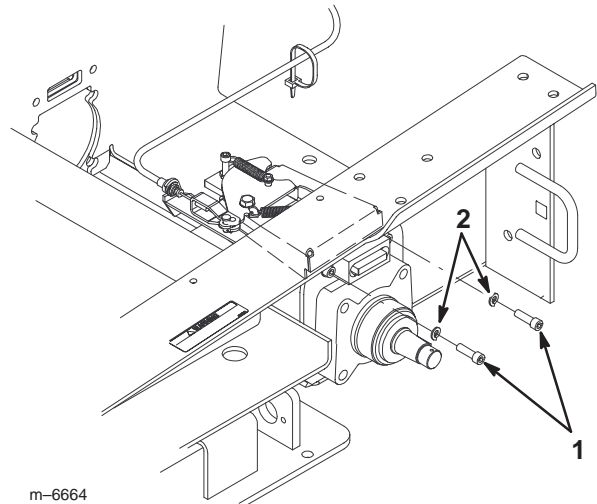
9. Allow the weldments to cool.
10. Prime and paint the area with a touch-up paint.
11. Repeat steps 1-10 for the opposite side if installing when second brake kit.

## Installing the Brake Assembly

**Note:** Install the left side brake assembly before installing the right side brake assembly.

1. Move the brake assembly into position making sure the brake plate is in place within the new brake block.
2. Secure the brake assembly using the hex socket head screws and lock washers included with the kit (Fig. 11).

3. Torque the hex socket screws to 67 to 83 ft-lb (91 to 113 N·m).



**Figure 11**

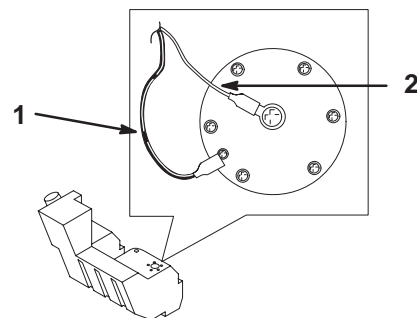
Brake assembly and chassis shown from the left side.

1. Hex socket screws, 3/8 x 1-1/4 inch
2. Lock washers, 3/8 inch

4. Manually test the brakes to verify that the brake plate moves through the brake block freely.
5. Repeat steps 1-4 for the opposite brake assembly when installing a second brake kit.

## Installing the Gas Tank

1. Slide the fuel tank part way into the chassis (Fig. 6).
2. Connect the fuel line and remove the clamp.
3. On the right side of the tank, connect the orange wire to the center post and the black wire to the outside post (Fig. 12).



**Figure 12**

1. Black wire
2. Orange wire



- Slide the tank all the way into the traction unit.

**Important** The fuel line and wires must be away from the engine pulleys and the frame.

- Replace the rear panel and secure it with the six bolts and nuts removed previously (Fig. 6).
- Place the fuel tank bracket over the tank and secure it and the battery tray with the bolts and washers removed previously (Fig. 6).
- Install the side weights with the bolts, washers, and lock washers removed previously (Fig. 6).
- Close the rear access cover.

## Installing the Rear Drive Wheel

- Clean the inside wheel hub and motor shaft with a degreaser prior to installing the rear drive wheel.
- Install the rear drive wheel over the motor shaft (Fig. 4 or 5). Be sure to line up the keyway in the hub with the key in the motor shaft.
- Install the wheel nut on the motor shaft so that the cotter pin hole is accessible (Fig. 4 or 5).
- Torque the nut to 250 to 300 ft-lb (271 to 407 N·m).

**Note:** Do not loosen the nut to allow for the cotter pin to be installed. If the hole is covered by the nut, tighten the nut to allow the cotter pin to be installed.

- Install the cotter pin into the hole in the motor shaft and bend the ends.
- Repeat steps 1-5 for opposite side when installing a second brake kit.

## Installing the Track (Dingo TX 420)

- Beginning at the drive wheel, coil the new track around the wheel, ensuring that the lugs on the track fit between the spacers on the wheel (Fig. 2).
- Push the track under and between the road wheels (Fig. 2).
- Starting at the bottom of the tension wheel, install the track around the wheel.

- Turn the tensioning screw counter-clockwise until the distance between the tension nut and the back of the fork tube (Fig. 13) is 2-3/4 inch (7 cm).

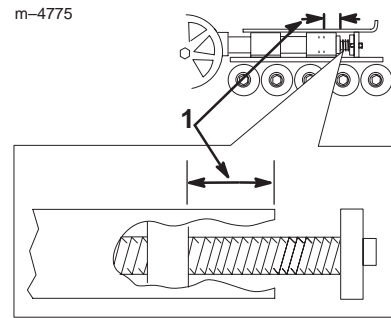


Figure 13

- 2-3/4 inch (7 cm)

- Align the closest notch in the tension screw to the locking bolt hole and secure the screw with the locking bolt and nut.
- Lower the traction unit to the ground.
- Repeat steps 1-6 for the opposite track when installing a second brake kit.

## Installing the Track (Dingo TX 425)

- Beginning at the drive wheel, coil the new track around the wheel, ensuring that the lugs on the track fit between the spacers on the wheel (Fig. 3).
- Push the track under and between the road wheels (Fig. 3).
- Starting at the bottom of the tension wheel, install the track around the inner wheel.
- Install the outer tension wheel and secure it with the tension wheel nut.
- Torque the nut to 250 to 300 ft-lb (271 to 407 N·m).
- Turn the tensioning screw counter-clockwise until the distance between the tension nut and the back of the fork tube (Fig. 13) is 2-3/4 inch (7 cm).
- Align the notch in the tension screw to the locking bolt hole and secure the screw with the bolt and locking nut.
- Lower the traction unit to the ground.
- Repeat steps 1-8 for the opposite track when installing a second brake kit.

