

## OWNER'S GUIDE

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### LIFTING BAR KIT

## PURPOSE

This document gives instructions on assembling and using the Lifting Bar Kit to lift a mill from ground level onto the Machine Stand.

## PRODUCT INFORMATION

**Product:** Lifting Bar Kit (PN 31446)

This kit includes the items as shown in the following image.



**Note:** If any items are missing, we can help. Create a support ticket with Tormach Technical Support at [tormach.com/how-to-submit-a-support-ticket](https://tormach.com/how-to-submit-a-support-ticket) for guidance on how to proceed.

## REQUIRED TOOLS

This procedure requires the following tools. Collect them before you begin.

- Adjustable wrench
- Clean cloth
- Engine hoist

## BEFORE YOU BEGIN

1. Inspect the lifting chain for any broken links, and all other parts to make sure that there are no breaks or imperfections. If you find any broken links or imperfections, we can help. Create a support ticket with Tormach Technical Support at [tormach.com/how-to-submit-a-support-ticket](https://tormach.com/how-to-submit-a-support-ticket) for guidance on how to proceed.
2. Use a clean rag to remove any shipping grease from all components in the Lifting Bar Kit and from the surface of the machine table.

# PREPARE TO LIFT THE MACHINE

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Complete the following steps in the order listed:

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### Assemble the Lifting Bar Kit

- Find and identify the correct Lifting Bar Kit mounting holes specific to your machine:
  - On each end of the Lifting Bar Kit are the front and rear mounting holes: the front connects the lifting chain to the machine table, and the rear connects to the machine column itself.
  - In the center of the Lifting Bar Kit are two mounting holes: one for each mill model.

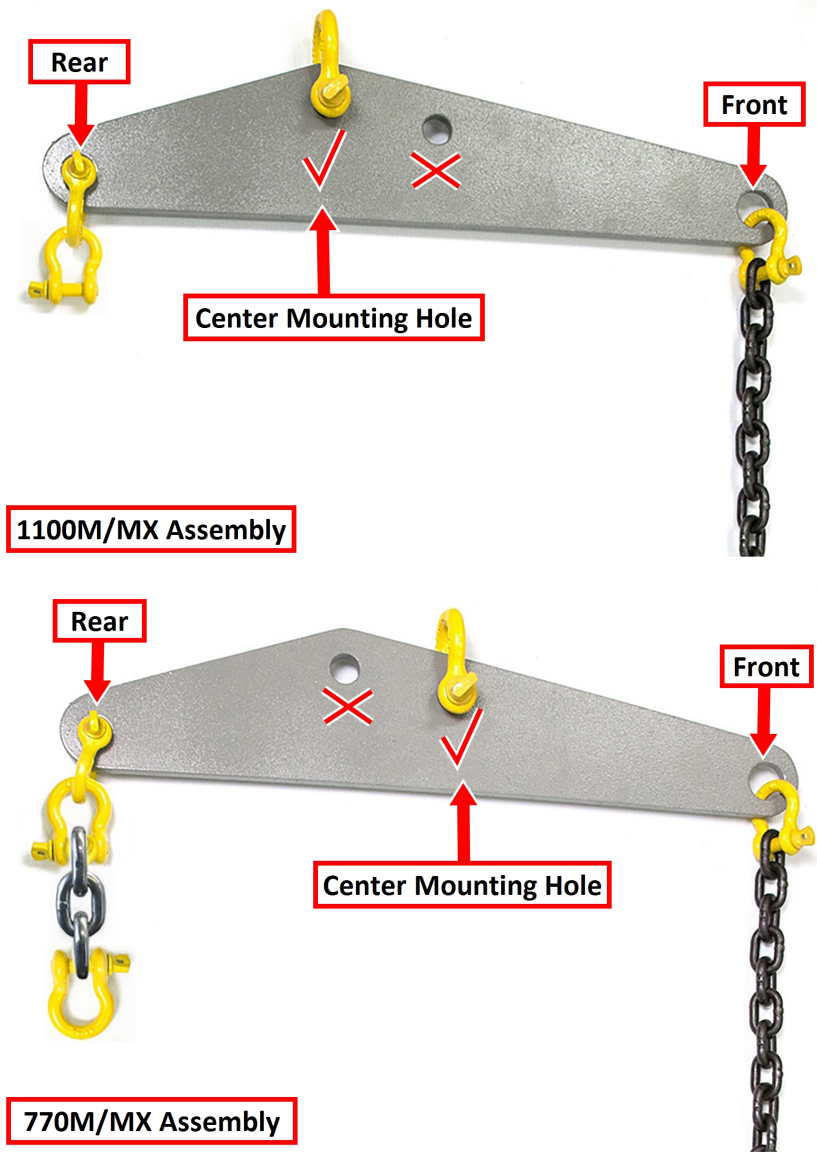


Figure 1: Center mounting hole on the Lifting Bar Kit.

- Put one 3/8-in. forged lifting clevis and the lifting chain into the front mounting hole.

# PREPARE TO LIFT THE MACHINE

3. Depending on your machine, the center hole that you use varies. Put the 1/2-in. forged lifting clevis in the appropriate center mounting hole that you identified in Step 1.
4. Depending on your machine, the procedure for the rear mounting hole varies:
  - **1100M/MX** Put two 3/8-in. forged lifting clevises into the rear mounting hole.
  - **770M/MX** Put two connected 3/8-in. forged lifting clevises, one three-link chain, and one 3/8-inch forged lifting clevis into the rear mounting hole.

## Connect the Machine for Lifting

1. Move three M12 T-nuts into the front T-slot on the machine table and arrange them in the center as shown in the following image.



*Figure 2: Lifting Bar Kit hardware arranged on the machine table.*

2. Put the M12 lifting eye in the center M12 T-nut.
3. Securely tighten the M12 lifting eye with an adjustable wrench.
4. Put one M12 × 25 mm hex bolt and one M12 flat washer into the each of the remaining M12 T-nuts.
5. Securely tighten the two M12 × 25 mm hex bolts and two M12 flat washers with an adjustable wrench.
6. Connect the loose end of the lifting chain to the M12 lifting eye.
7. Connect the hook from your engine hoist to the center 1/2-in. forged lifting clevis on the lifting bar.

# PREPARE TO LIFT THE MACHINE

8. Depending on your machine, the procedure for connecting the lifting bar varies:

- **1100M/MX** Connect the lifting bar's rear 3/8-in. forged lifting clevis to the M16 lifting eye on the top of the machine column.



*Figure 3: Lifting Bar Kit connected to the machine.*

- **770M/MX** Connect the lifting bar's rear 3/8-in. forged lifting clevis to the lifting bracket on the rear of the machine column.



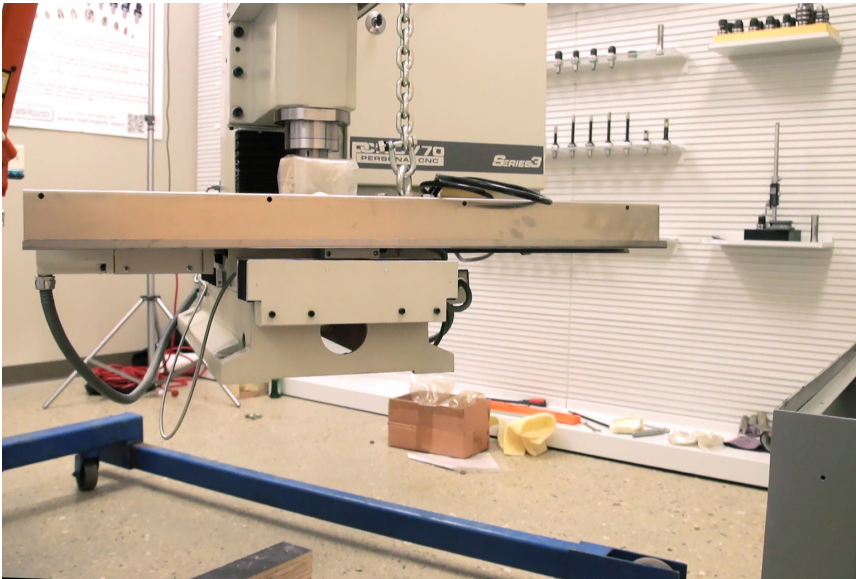
*Figure 4: Lifting Bar Kit connected to the machine.*

## LIFT THE MACHINE

1. Without yet lifting the machine, raise the engine hoist to remove any slack in the lifting chain.
2. Verify that the connections on the M12 hex bolts and the M12 lifting eye are securely tightened with an adjustable wrench.

**⚠ WARNING!** Tip Hazard: Before lifting the machine, you must verify that it's properly leveled. If the machine isn't level while it's lifted, the load on the engine hoist can unexpectedly slide, causing death or serious injury.

3. Slowly and steadily lift the machine to examine the alignment. The machine must lift flat and stay parallel with the floor, as shown in the following image.



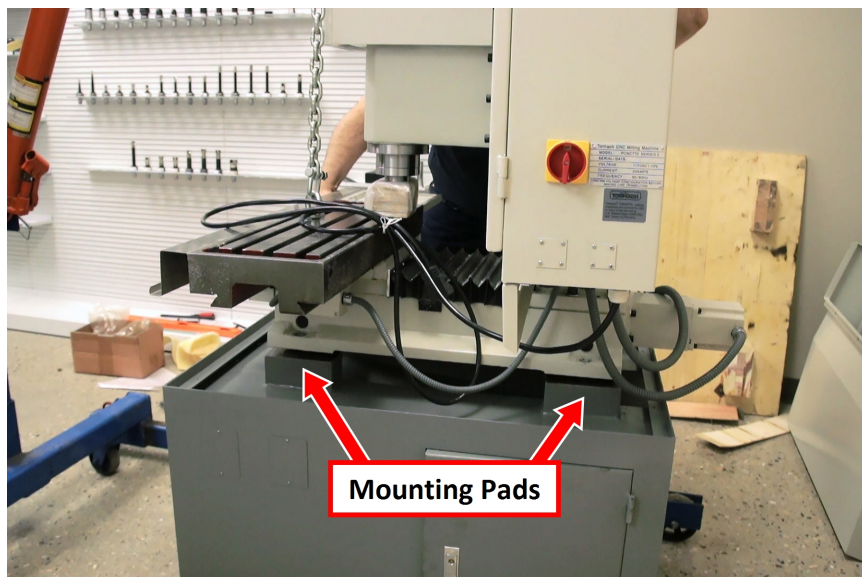
*Figure 1: Machine lifted parallel to the floor.*

If necessary, lower the machine and adjust the position of the M12 T-nuts.

4. Continue to lift the machine until it reaches the height at which it can clear the machine stand.
5. Position the machine above the machine stand.



6. Slowly and steadily lower the machine on to the mounting pads on the machine stand, as shown in the following image.



*Figure 2: Machine lowered on to the mounting pads on the machine stand.*

**⚠ WARNING!** Crush Hazard: While lowering the machine onto the machine stand, you must keep your hands away from all moving parts. Moving parts can entangle, pinch, or cut you, causing death or serious injury.

7. Secure the machine to the machine stand with a 10 mm hex wrench, four M12 × 50 mm socket head cap screws, and four M12 washers.
8. Once the machine is completely supported by the machine stand, remove all components of the Lifting Bar Kit.