

Field Assembly Instructions

Introduction

Follow these instructions to assemble a two-piece, ductile iron McWane pole in the field. Poles requiring field assembly will ship in two pieces: an inserting (bottom) section and a receiving (top) section.

These field assembly instructions supersede any prior guidelines provided by McWane Poles. Please adhere to your organization's safety and equipment guidelines when assembling or performing operations with McWane Poles products.

Safety Labels

The labels described in Table 1 are used to indicate important safety information. Follow the instructions accompanying each label to ensure safe operation of McWane Poles products.

 Label
 Meaning

 ⚠ DANGER
 DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

 ⚠ WARNING
 WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

 ⚠ CAUTION
 CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

 NOTICE
 NOTICE is used to address practices not related to physical injury.

Table 1: Safety Labels

Required Equipment

The following equipment is required to assemble a two-piece McWane pole:

- Water-based lubricant, such as dish soap
- Torque wrench (1)
- Chain hoists (10,000 lbs. max tension force) (2)
- Hand drill plus 11/16-in. drill bit (1)
- McWane Poles jacking kit (Figure 1) (1)
 - Jacking lugs (4)
 - 5/8-in. Grade 5 bolts (2)
 - Washers (4)
 - 5/8-in. nuts (2)



Inspect all equipment prior to assembly. If equipment is damaged or missing, please contact your McWane Poles sales representative.



Figure 1: McWane Poles Jacking Kit

McWane Poles jacking kits are reusable as long as the included equipment is not used improperly or damaged. Additional jacking kits are available for purchase from McWane Poles.

Personal Protective Equipment (PPE)

McWane Poles recommends the use of the following personal protective equipment (PPE) during assembly of two-piece poles:

- Hard hats
- Safety glasses
- Hearing protection
- Steel-toed boots
- Gloves

Please adhere to your organization's PPE requirements when assembling or performing operations with McWane Poles products.

Assembly Steps

McWane Poles recommends assembling the two-piece pole in a flat, even area where the pole can remain in a horizontal, elevated position until ready for framing and installation.



Figure 2: Ideal Location for Assembly

Serial Numbers

Note: Ensure the serial numbers of the two pole sections match.

The serial number of the receiving section is located on the tag of the pole.





Figure 3: Serial Number, Receiving Section

The serial number of the inserting section is located on the tag above the groundline.



Figure 4: Serial Number, Inserting Section

Section Alignment

1. Use the hand drill or wrench to remove the assembly through-bolt from the receiving section. Store the assembly through-bolt somewhere safe for easy access.

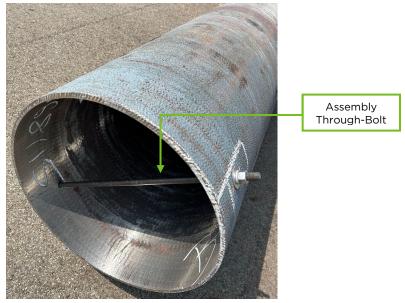


Figure 5: Receiving Section and Assembly Through-Bolt

- 2. Ensure all mating surfaces are free of debris, and then apply the water-based lubricant uniformly around the surface of the inserting section of the pole.
- **3.** Lift and support both sections so they are level, and the tip of the inserting section is slightly elevated.



Figure 6: Inserting Section with Tip Elevated

4. Align the pole section quadrants marked with "B" icons at the joint. Do not proceed until the quadrants are aligned.



Figure 7: Quadrants Aligned at the Joint

5. Attach two jacking lugs to each section at the pre-drilled 11/16-in. hole locations using the 5/8-in. Grade 5 bolts.



Tighten the nuts to between 110 and 150 ft-lbs. of torque and verify that the jacking lug plates are tight against the pole's surface. Loose lugs may result in unintended stress on the bolts, risking bolt failure and possible injury.

6. Attach the two chain hoists to the jacking lugs.



Figure 8: Chain Hoists Attached to Jacking Lugs



If a pre-drilled hole falls within the overlap joint, re-drilling may be required. Refer to the video <u>How to Drill a McWane Pole</u> for more information (a QR code is located on the last page of these instructions).

Section Insertion

McWane Poles recommends performing section insertion in a horizontal position when possible.

1. Identify the position of the minimum insertion line, or "overlap mark," on the inserting section. (It is marked with a "MIN" in Figure 7.) The inserting section will be inserted into the receiving section up to the minimum insertion line.

NOTICE

If the minimum insertion line is not visible, one must be added during field assembly. The length of the line is equal to 1.5 times the inside diameter of the bottom of the receiving section. McWane Poles recommends measuring the line to confirm accuracy.

- 2. With team members on each side of the pole, jack the pole sections together with two chain hoists simultaneously.
 - A. Jack each section with a force equal to the anticipated axial load.
 - B. Jacking should continue until the pole sections are firmly pressed together.



Do not exceed 10,000 lbs. of tension force in each chain hoist.



Depending on pole class, minimum insertion depth could be greater than specified. If more than 20,000 lbs. of combined assembly force are needed for pole assembly, contact your McWane Poles sales representative.

- 3. Verify that the minimum insertion line is reached and that no gap larger than 1/8-in. remains between adjoining sections.
- 4. Use the hand drill and 11/16-in. bit to drill holes through the inserting section at the locations where the assembly through-bolt was removed from the receiving section.



McWane Poles recommends removing the pilot bit from the hole saw bit to avoid breakage when drilling the hole for the assembly through-bolt.

5. Insert the assembly through-bolt into the newly drilled holes. The assembly through-bolt should pass through both sections of the pole.



Field assembly may affect the specified pre-drilled hole measurement on the receiving section, depending on the amount of overlap between sections.

6. Securely tighten the assembly through-bolt nut to between 80 and 110 ft-lbs. of torque.

The pole is now fully assembled and ready for framing and installation.

Instructional Videos

Scan the QR Codes to visit the McWane YouTube channel and view demonstrations on Field Assembly Instructions and How to Drill a McWane Pole.

Contact Us

For additional information and assistance, please contact our sales team via:

• Phone: (740) 202-7482

• Email: <u>sales@mcwanepoles.com</u>



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How to Drill a McWane Pole

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