

INSTRUCTIONS FOR

CHANCE PISA® DRIVE-END WRENCHES

GENERAL

! WARNING

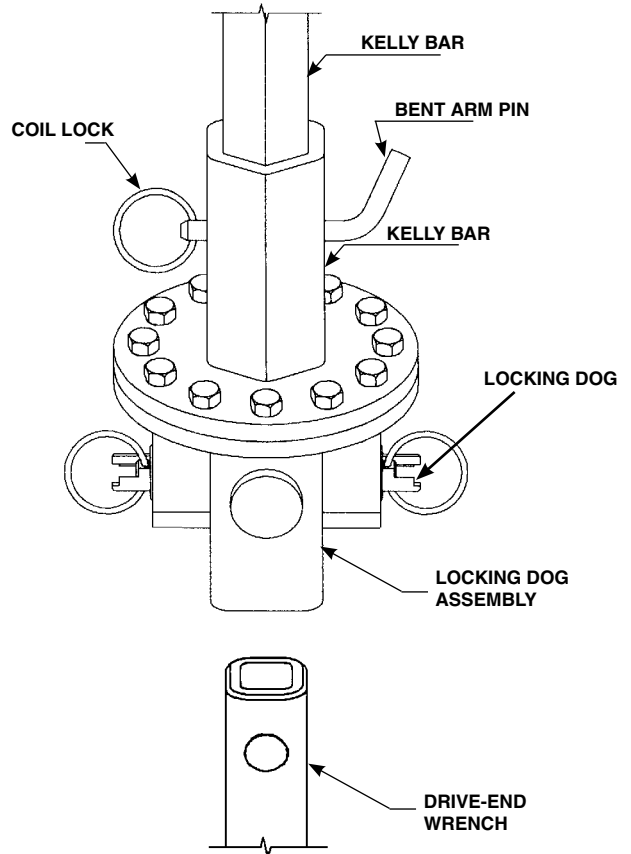
Read, Follow, and Understand this instruction sheet completely before installing an anchor. These instructions are intended to illustrate the use of Drive-End Wrenches. Anchor installing tools covered in this instruction sheet must be used by competent personnel familiar with and following good work and safety practices. Should additional information and details be desired, or if specific situations arise which are not covered adequately herein, the user should refer to Chance directly. In some cases, Chance may make specific recommendations concerning installation torque and installation depth for a particular application.

To install the Drive-End Wrench into the Locking Dog Assembly, open the Dogs by pulling outward and twisting in a counterclockwise direction until the rings rest on the outside position of the steps.

Insert the Drive-End Wrench.

Rotate the rings of the Locking Dog to the inside position in order to capture the wrench.

Note: The Locking Dog rings have three positions. The inside ring position allows the Locking Dogs to hold both the Drive-End Wrench and the Pisa Rod. The middle position releases the Pisa Rod, but holds the Drive Wrench. The outside position releases the Pisa Rod and the Drive-End Wrench. See the Locking Dog Adapter instructions for illustrations of these three positions.



! WARNING

Heavy suspended objects can fall.
Can cause property damage, severe injury, or death.
Stay out from under the locking dog adapter when adjusting the dog positions.

The Drive-End Wrench is now properly seated in the Locking Dog Adapter. The next step is inserting a Pisa Rod and Anchor.

! WARNING

Anchor installation can puncture underground utility service.
Can cause property damage, severe injury, or death.
Locate and avoid all underground utility services when installing an anchor.

Screw a Pisa Rod into the Anchor Hub.

Insert the Pisa Rod most of the way into the Drive-End Wrench.

These instructions do not claim to cover all details or variations in equipment, nor to provide for all possible conditions to be met with concerning installation, operation, or maintenance of this equipment. If further information is desired or if particular problems are encountered which are not sufficiently covered in this guide, contact A. B. Chance Company.

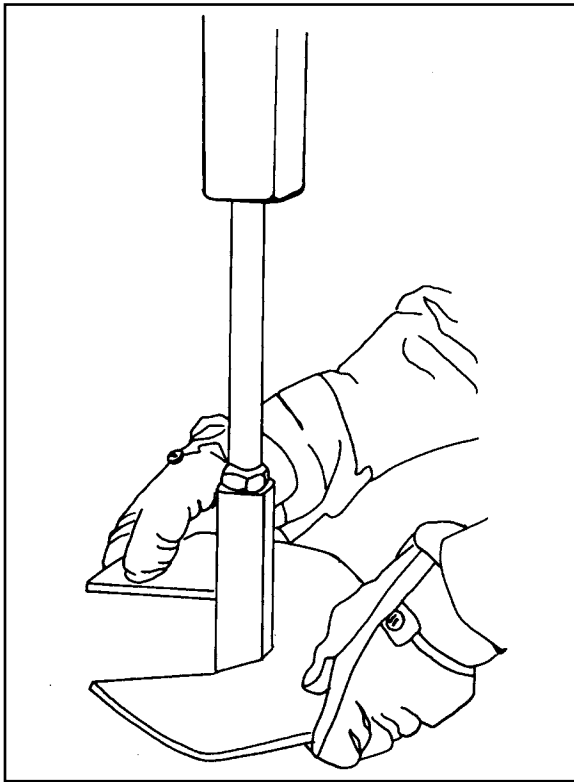
NOTE: Because Chance has a policy of continuous product improvement, we reserve the right to change design and specifications without notice.

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OPERATION

Align the Anchor Hub with the Drive-End Wrench so that the two can telescope together.

Lock the Pisa Rod into place with a strong upward motion. This will snap the Dogs out momentarily allowing the upset shoulder of the Pisa Rod to pass by. The Dogs will then snap back in and capture the Pisa Rod. Check to see if the Drive-End Wrench and Pisa Rod are securely held. If so, the tool string is now ready to install an anchor.



! WARNING

Falling object.
Can cause property damage, severe injury, or death.
Keep feet out from under the anchor and tooling.

! WARNING

Bending or overtorquing the tool string is hazardous.
Can cause property damage, severe injury, or death.
Do not allow visible bending of the tool string or torque greater than the rating of the tool.

Always use tools that are the appropriate size and rating for your particular application. The table below shows the color coded rating system used on Chance Drive-End Wrenches.

Torque Rating of the Anchor tools (ft-lb)	Color code on Drive-End Wrench	Hub Size Large 2 ¹ / ₂ inch Small 2 ¹ / ₄ inch
10,000	orange	small
10,000	yellow	large
15,000	red	large

ANCHOR INSTALLATION INSTRUCTIONS

Begin anchor installation in a near vertical position. After the anchor has entered the soil, adjust the boom of the digger so that the Pisa Rod is in line with the Guy.

Use steady down pressure during installation of the anchor to keep maximum anchor socket engagement. Avoid excessive uplift. Do not exceed the tool and/or anchor torque rating.

When locking dogs reach ground level, stop installation.

WARNING

**Unexpected high speed backlash may occur.
Can cause severe injury or death.
Stay clear of drive train. May contain stored torsional energy.**

WARNING

**Loose or broken parts may be thrown at high speed.
Can cause property damage, severe injury, or death.
Stay away from drive train during installation.**

Note: If deeper installation is needed, an extension wrench and extension rod are required. See the instructions for an extension wrench on page 4 before continuing with those given below. If extension wrench is not needed continue reading below.

Pull the Locking Dog rings out to the middle position. This will release the Pisa rod while retaining the Drive-End Wrench. The Drive-End Wrench can now be pulled from the ground.

WARNING

**Inadequate maintenance or improper use of tools and hardware may lead to unexpected failure.
Can cause property damage, severe injury, or death.
Frequently inspect tools and hardware for damage, correct quantity, correct type, and proper torque. Replace as necessary with the same grade and size as the originals.**

The Pisa rod is now ready for installation of an eye nut.

Before each new installation check the tool string for loose or damaged parts. Always use tools that are the appropriate size and rating for your particular application.

INSTRUCTIONS FOR CHANCE PISA EXTENSION WRENCHES

This instruction sheet assumes that an anchor has already been partially installed with a Drive-End Wrench. For instructions on how to do this, see pages 1-3. Assembly should be at or near ground level.

Put the Dogs to the outside position. This will release both the Pisa rod and the Drive-End wrench. Move the Kelly Bar/tool string to the side, leaving the Pisa rod and Drive-End wrench in the ground.

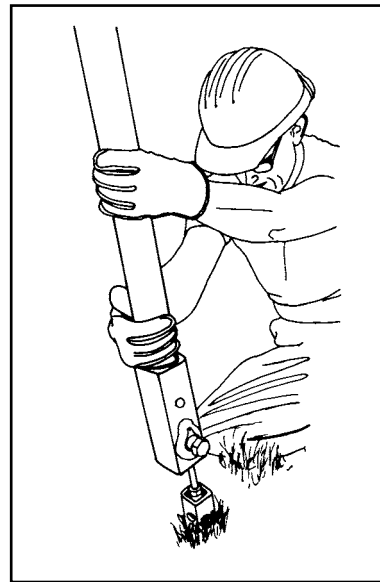
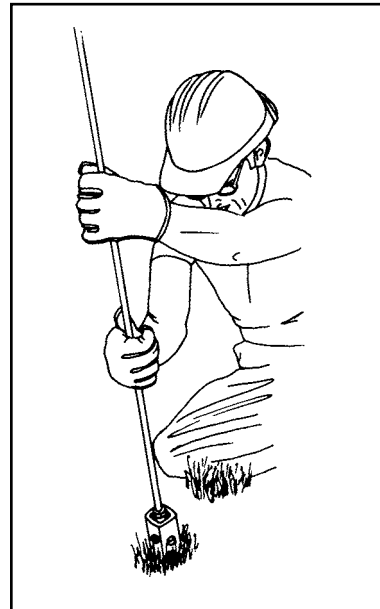
Screw an extension Pisa rod onto the end of the Pisa rod.

Slide the extension wrench over the extension rod.

Bolt the extension wrench to the Drive-End wrench using the two dog bolts. This must be done now in order to retrieve the wrench from the ground.

Attach the Locking Dog assembly to the extension wrench and extension rod. Be sure the dogs are in the inside position before resuming installation. See the instructions included with the locking dogs for details on the three dog positions.

Continue installation of the anchor.



! WARNING

**Unexpected high speed backlash may occur.
Can cause severe injury or death.
Stay clear of drive train.**

When the desired depth is reached, stop the installation. If deeper installation is required, this process may be repeated again with another extension wrench. Maximum anchor depth is 21 feet (one 7 foot Drive-End Wrench and two 7 foot Extension Wrenches). Do not use more than two extensions of any length, or retrieval of the tool string from the ground may be impossible.

Pull and twist the dogs to the middle position. This will release the extension rod, but still hold the extension wrench.

The wrenches can now be pulled from the ground.

Always use tools that are the proper size and rating for your particular application.

! WARNING

**Bending or overtorquing the tool string is hazardous.
Can cause property damage, severe injury or death.
Do not allow visible bending of the tool string or torque greater than the rating of the tool.**

