

INSTRUCTIONS FOR

CHANCE BOLTED HELICAL PILE DRIVE TOOLS

GENERAL

⚠ WARNING

Read and understand this instruction sheet completely before installing a helical pile. These instructions are intended to illustrate the use of Drive Tools. Drive 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 required, or if specific situations arise which are not covered adequately herein, the user should refer to Hubbell Power Systems directly. In some cases, Hubbell Power Systems may make specific recommendations concerning installation torque and installation depth for a specific application.

Check the Drive Tools to be used for wear and replace as necessary.

⚠ WARNING

Inadequate maintenance, incorrect tooling, or improper use of tools and hardware may lead to unexpected fracture.

Can cause property damage, severe injury, or death.

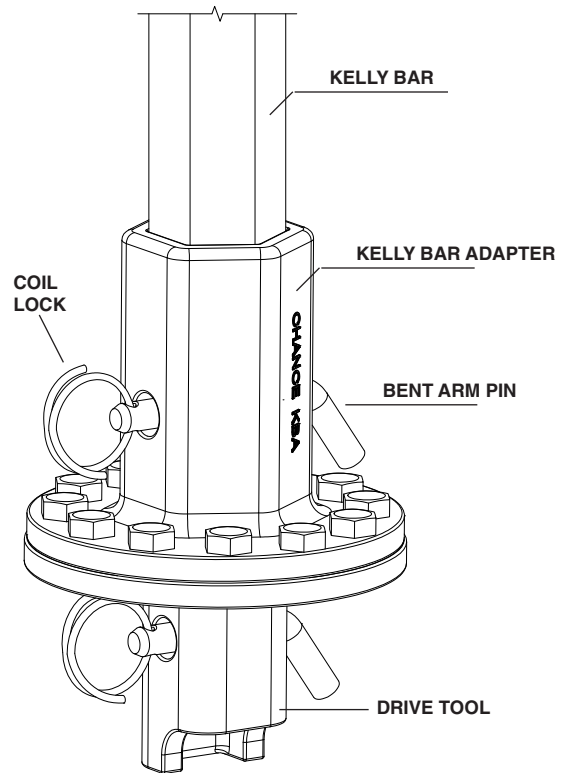
Frequently inspect tools and hardware for damage, correct quantity, correct size, correct type, and bolt tightness. Replace as necessary with the same grade and size as the originals.

1. Bolt the Helical Pile Drive Tool to the Kelly Bar Adapter (a torque indicator may be inserted between them; see instructions included with Torque Indicator) using the bolts, lock-washers, and nuts provided (both must have the same size bolt circles or a Bolt Circle Adapter must be used; see instructions included with Bolt Circle Adapter). The hot dip galvanized bolts provided with some tools should only be used in drilled holes. Tools having tapped holes should use only plated bolts. When using a Torque Indicator, use the plated bolts provided with the Torque Indicator to attach the Kelly Bar Adapter and Helical Pile Drive Tool.

Tighten the bolts to the recommended torque values shown in the table below.

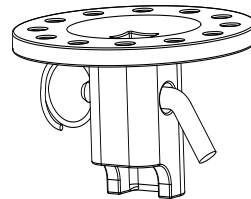
If it becomes necessary to replace any bolts, always replace with the same diameter, length, and grade as the originals.

Qty. Bolts & Dia	Grade	Recommended tightening dry torque values (ft.-lb) on bolts
(4) 1/2"	grade 8	75
(6) 1/2"	grade 5	75
(6) 5/8"	grade 2	95
(8) 5/8"	grade 2	95
(12) 5/8"	grade 2	95

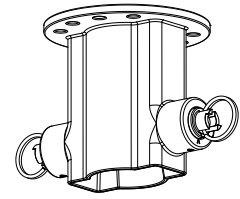


SQUARE SHAFT DRIVE TOOL
639001
C303-0195
C303-0201
C303-0202
C303-1502

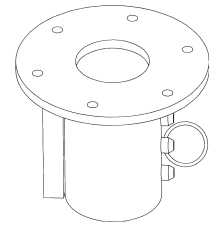
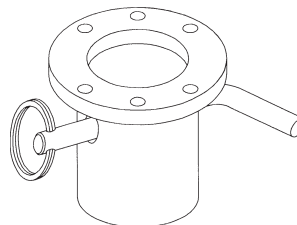
QUICK CHANGE DRIVE TOOL
C3031626
C3031627
C3031754



BUMPER POST DRIVE TOOL
C303-0737



RS3500.300 (PIPE SHAFT) DRIVE TOOL
C303-0754



These instructions do not claim to cover all details or variations in equipment, nor to provide for all possible conditions to be met concerning installation, operation, or maintenance of this equipment. The presence of energized overhead lines in particular may necessitate alternate methods to prevent accidental contact with the lines. If further information is required or if specific problems are encountered which are not sufficiently covered in this guide, contact Hubbell Power Systems.

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



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2. Install the tool assembly on the Kelly Bar per the instructions included with the Kelly Bar Adapter.

! WARNING

**Heavy suspended objects may fall.
Can cause property damage, severe injury, or death.
Stay out from under the helical pile and tool string at all times. Keep feet clear of suspended piles or tools.**

3. Insert the end of the Helical Pile shaft into the drive tool. For all of the Drive Tools except the quick change tool, pin the anchor shaft in place with the bent arm pin provided. Install the coil lock through the hole in the end of the bent arm pin. The coil lock must be used to keep the bent arm pin in place. Other retention methods, including bolt and nut, and pins with “klik” pins, have been tested and shown to be inadequate. The bent arm pin and coil lock must be checked periodically and replaced with original equipment as necessary to ensure proper and safe operation. For Quick Change Drive Tools use Pin Assemblies that match tool and drive tool shafts. Ensure Locking Dogs are engaged and constrain pin assembly and pile in tool body. Replace Pin Assemblies and Locking Dogs as necessary for safe operation.

HELICAL PILE INSTALLATION INSTRUCTIONS

! WARNING

**Helical pile installation can puncture underground utility, service, causing property damage, severe injury, or death.
Locate and avoid all underground utility services when installing a helical pile.**

Begin Helical Pile installation in a near vertical position. After the pile has entered the soil, adjust the boom of the digger if necessary so that the helical pile will be in line with the load.

! 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 or the helical pile.**

Use steady down pressure during installation of the Helical Pile to ensure minimum disturbance of the soil and maximum holding capacity. Avoid excessive uplift. Do not exceed the Drive Tool or helical pile torque rating.

! WARNING

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

When the Drive Tool reaches ground level, stop installation. Disengage the helical pile from the Drive Tool. If applicable, add helical pile extensions to achieve the depth required by repeating Step 3.

! WARNING

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

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.

