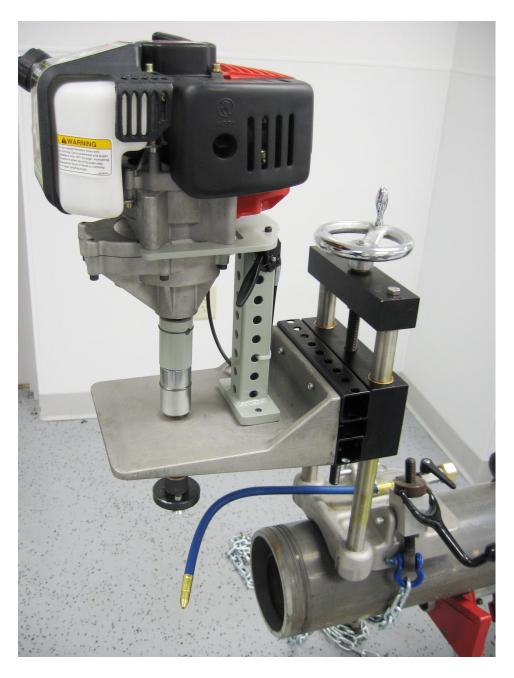
1660 Hole Cutter System Operation and Service Manual





Wheeler-Rex • Ashtabula, Ohio Tel: 800-321-7950 • Fax: 440-992-2925 wheeler@wheelerrex.com

Choosing the Shell Cutter

There are three different types of shell cutters.



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 3395 |
| 4 1/2" | 3450 |
| 6" | 3595 |
| 6 1/2" | 3650 |

For Clay and Concrete



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 6395 |
| 4 1/2" | 6450 |
| 6" | 6595 |
| 6 1/2" | 6650 |
| 8" | 6800 |

For Reinforced Concrete, Clay, Ductile Iron and Cast Iron



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 4395 |
| 4 1/2" | 4450 |
| 6" | 4595 |
| 6 1/2" | 4650 |
| 8" | 4800 |

For Plastic

Changing the Shell Cutter



Remove the two (2) screws from the arbor.



Loosen the set screw with the Allen key and insert pilot drill. Make sure pilot drill is aligned for the set screw to tighten on drill flat.



Attach the shell cutter with the two (2) screws.

** Shell cutters & pilot drill are sold separately from the hole cutter unit.**

Hole Cutter Setup



Set the hole cutter on the pipe.



Screw

— Nut

Unscrew hand clamp until screw is flush with nut.



Make sure the pipe is nested properly in the saddle of the base casting. Pull chain under pipe and back to casting base. Place one chain link between casting and push pin through base and chain link. Tighten chain with hand crank.

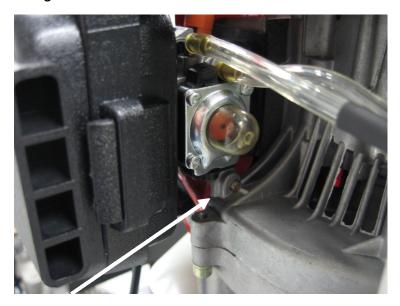
Operating the Gas Powered Engine



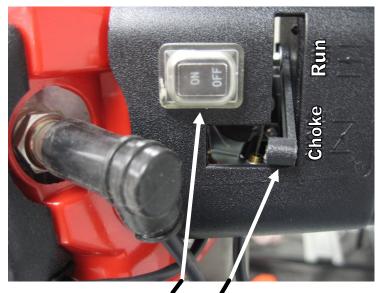
Read Engine manual and instructions prior to starting engine.



Mix gas & 2 cycle oil according to engine manufacture's instructions. Fill gas tank.



Gas primer ball



Engine Off / On Switch
Engine Choke / Run Switch



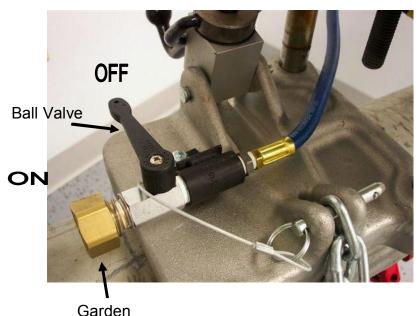
Pull start handle and start the engine.



Engine throttle lever.

Once engine is running, use throttle lever to control engine speed during cutting operation.

Preparing for the Cut



Hose Inlet

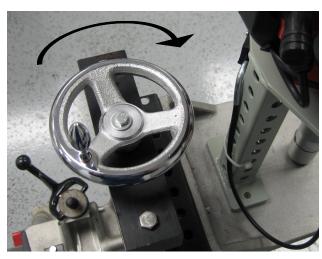
Attach garden hose to valve connection. Turn water on at source. Keep ball valve "OFF" until ready to make cut. This ball valve can also be used to control the water flow.



Adjust flexible hose for water stream to point on shell cutter. This is to help keep the cutter cool as well as flush away chips.

Making the Cut

- 1. Turn fluid valve to "ON" position.
- 2. Pull throttle lever to increase speed and power of the gas engine.

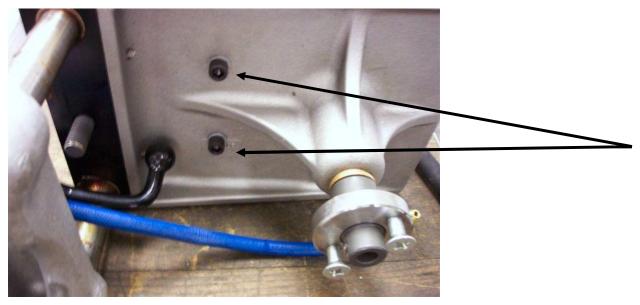


Slowly turn feed hand wheel in the clockwise position to lower the shell cutter. A heavy feed rate may damage shell cutter or pipe that is being cut. Allow shell cutter to cut material with a slow, steady turn of the feed wheel. If at anytime there are problems making the cut, stop cutting immediately.

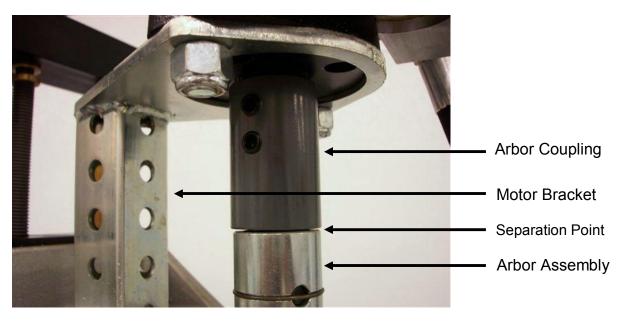
Other Options

The hole cutter is a modular system where the base, feed mechanism and arbor assembly remain the same. The power supply in interchangeable with four different options: Electric, gas, pneumatic, and hydraulic.

Here is how to change power supplies:

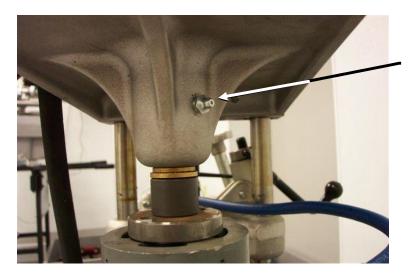


Remove the two (2) socket head cap screws from the platform.



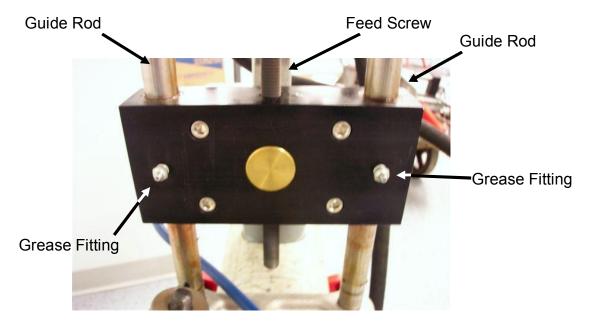
Separate the motor assembly from the arbor assembly. You can now replace the power assembly.

Maintenance



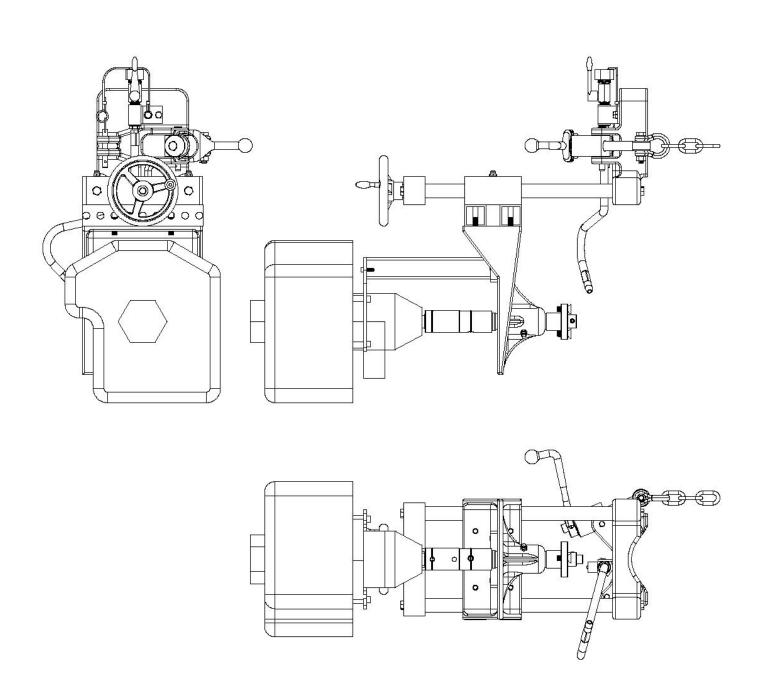
Grease Fitting

Grease arbor shaft prior to each use.

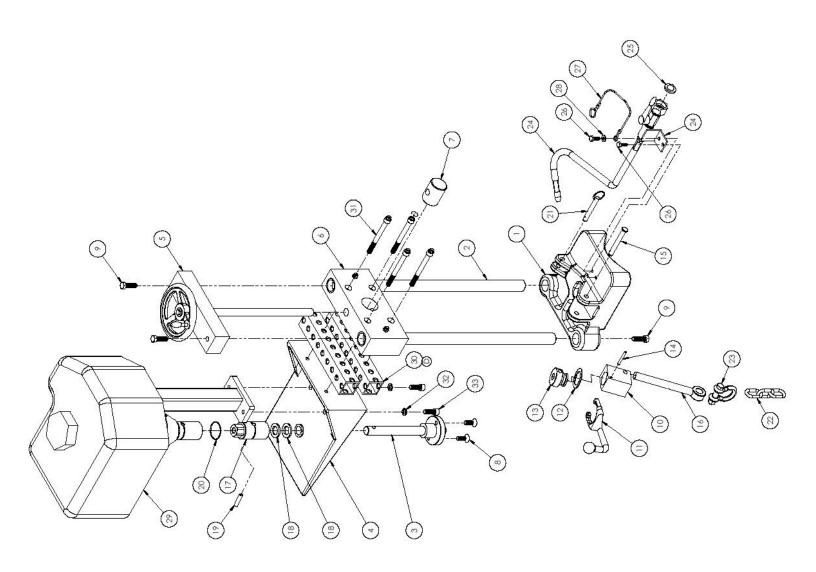


Grease guide rod bushings prior to each use. Clean guide rods after each use. Clean feed screw before and after each use.

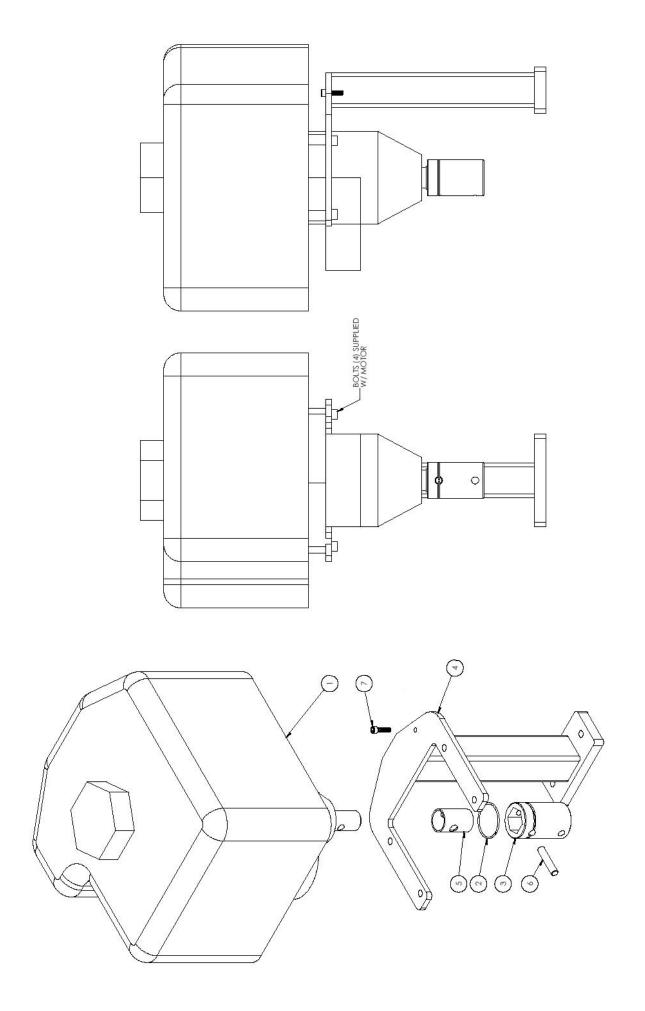








| 1 700991 Base (Machined) 2 700431 RABOR ASSEMBLY 4 700443 ARBOR HOUSING ASSEMBLY 5 700438 HEAD ASSEMBLY 6 700438 HEAD ASSEMBLY 7 700436 DRIVE BLOCK 8 700438 HEAD ASSEMBLY 9 276541 38-16 x 1" PHILLIPS FLAT HEAD MACHINE SCREW 10 700985 CHAIN TENSION BLOCK 11 606742 HANDLE 12 606742 HANDLE 13 700989 276840 14 275892 COTTERLESS CLEVIS PIN 36" x3" LONG 15 276892 376" DIAX 112" ROLL PIN 16 276892 376" DIAX 114" REALINER 20 260 COPWEL PIN 21 276892 376" DIAX 114" SHACKLE 24 701079 FLUID ASSEMBLY 25 776991 14-20 x3" HCS 26 560081 14-20 x3" HCS 27 776991 14-20 x3" HCS | ltem | Nd | Description | Qty |
|---|------|--------|-----------------------------------|-----|
| 700431 ROD 700443 ARBOR ASSE 700441 ARBOR HOUS 700438 HEAD ASSEM 700438 ELEVATOR AS 700436 DRIVE BLOCK 12011 3/8-16 x 1 1/4" 700985 CHAIN TENSIG 606742 HANDLE 606743 BEARING 700985 CRANK NUT 276892 COTTERLESS 276893 3/16" DIA x 11 276894 BORING CAP 70045 BORING CAP 70045 BORING CAP 700445 BORING CAP 700445 BORING CAP 700397 G'LONG 700449 ENGINE & MO 700449 ENGINE & MO 701397 SPACER 717 | - | 700991 | Base (Machined) | - |
| 700443 ARBOR ASSE 700441 ARBOR HOUS 700438 HEAD ASSEM 700436 DRIVE BLOCK 12011 3/8-16 x 1 1/4" 700985 CHAIN TENSIG 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS 276892 COTTERLESS 276892 COTTERLESS 276892 COTTERLESS 276892 COTTERLESS 276892 COTTERLESS 276891 THRUST BEAF 276097 DOWEL PIN 260 CAP PIN RET/276097 G' LONG CHAIN 260 CAP PIN RET/276991 3/8" x 2" LONG 27691 3/8" x 2" LONG 27691 3/8" x 2" LONG 27691 1/4-20 x 3/4" H 276073 G' LANYARD 10713 3/16" FLAT W/700449 ENGINE & MO 701397 SPACER 77139 3/8" SPLIT LO | 2 | 700431 | ROD | 2 |
| 700441 ARBOR HOUS 700438 HEAD ASSEM 700436 DRIVE BLOCK 700436 DRIVE BLOCK 12011 3/8-16 x 1 1/4" 276541 3/8-16 x 1 1/4" 700985 CHAIN TENSIG 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS 276892 S/8-11 x 6" FU 700989 COTTERLESS 276892 S/8-11 x 6" FU 700445 BORING CAP 27693 JOWEL PIN 27694 THRUST BEAF 27699 CAP PIN RETA 27691 3/8" x 2" LONG 701079 FLUID ASSEM 27691 STRAINER 560081 1/4-20 x 3/4" H 560081 1/4-20 x 3/4" H 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LO 7179 3/8" SPLIT LO 775118 3/8" SPLIT LO | 3 | 700443 | ARBOR ASSEMBLY | 1 |
| 700438 HEAD ASSEM 700433 ELEVATOR AS 700436 DRIVE BLOCK 12011 3/8-16 x 1 1/4" 276541 3/8-16 x 1 1/4" 700985 CHAIN TENSIG 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS 276892 COTTERLESS 276893 S/8-11 x 6" FU 276894 THRUST BEAF 276481 THRUST BEAF 276697 CAP PIN RETA 276591 3/8" x 1" CHAII 276591 3/8" x 1" CHAII 2766081 1/4-20 x 3/4" H 276073 6" LANYARD 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LO 71 | 4 | 700441 | ARBOR HOUSING ASSEMBLY | 1 |
| 700433 ELEVATOR AS 700436 DRIVE BLOCK 12011 3/8-16 x 1 1/4" 276541 3/8-16 x 1 1/4" 700985 CHAIN TENSIG 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS 276892 COTTERLESS 276893 3/8-11 x 6" FU 276097 DOWEL PIN 276097 DOWEL PIN 276891 3/8" x 2" LONG 700397 6" LONG CHAII 701079 FLUID ASSEM 276081 3/8" x 1" CHAII 701079 FLUID ASSEM 276073 6" LANYARD 10713 3/16" FLAT WA 700449 ENGINE & MO 701397 SPACER 277198 3/8" SPLIT LO 7179 3/8" SPLIT LO 7179 3/8" SPLIT LO 7179 3/8" SPLIT LO 7179 3/8" SPLIT LO | 5 | 700438 | HEAD ASSEMBLY | _ |
| 700436 DRIVE BLOCK 12011 3/8-16 x 1" PHI 276541 3/8-16 x 1 1/4" 700985 CHAIN TENSIG 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS 276892 5/8-11 x 6" FU 700445 BORING CAP 700445 BORING CAP 27697 DOWEL PIN 276997 DOWEL PIN 276997 DOWEL PIN 276891 3/8" x 2" LONG 701079 FLUID ASSEM 701079 FLUID ASSEM 276917 STRAINER 560081 1/4-20 x 3/4" H 700449 ENGINE & MO 700449 ENGINE & MO 701397 SPACER 275118 3/8" SPLIT LO 7179 3/8" SPLIT LO 7179 3/8" SPLIT LO | 9 | 700433 | ELEVATOR ASSSEMBLY | 1 |
| 12011 3/8-16 x 11/4" 276541 3/8-16 x 11/4" 700985 CHAIN TENSIG 606742 HANDLE 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS 276892 S/8-11 x 6" FU 700445 BORING CAP 70045 BORING CAP 70045 BORING CAP 700397 CAP PIN RET 276891 3/8" x 2" LONG 700397 G' LONG CHAII 701079 FLUID ASSEM 701079 FLUID ASSEM 701079 G' LANYARD 701079 G' LANYARD 701397 STRAINER 700449 ENGINE & MO 701397 SPACER 275118 3/8-16 x 1" SO | 7 | 700436 | DRIVE BLOCK | 1 |
| 276541 3/8-16 x 1 1/4" SS 700985 CHAIN TENSION E 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 COTTERLESS CL 276892 COTTERLESS CL 276892 COTTERLESS CL 276893 5/8-11 x 6" FULLY 700445 BORING CAP 27697 DOWEL PIN 27697 DOWEL PIN 276997 DOWEL PIN 276997 CAP PIN RETAINE 700397 6" LONG CHAIN ST 701079 FLUID ASSEMBLY 2765917 STRAINER 560081 1/4-20 x 3/4" HHCS 276073 6" LANYARD 10713 3/16" FLAT WASH 701397 SPACER 277198 3/8" SPLIT LOCK V 7179 3/8" SPLIT LOCK V 7179 3/8" SPLIT LOCK V 7179 3/8" 1" SOCKE | 8 | 12011 | | 2 |
| 700985 CHAIN TENSIC 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 3/16" DIA x 1 1, 276892 COTTERLESS 276892 5/8-11 x 6" FU 700445 BORING CAP 27697 DOWEL PIN 276997 DOWEL PIN 276997 CAP PIN RETA 276891 3/8" x 2" LONG 276891 3/8" x 2" LONG 276591 3/8" x 1" CHAIN 276591 3/8" x 1" CHAIN 276073 6" LANYARD 10713 3/16" FLAT WA 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LOC 7179 3/8" SPLIT LOC 7179 3/8" SPLIT LOC 7179 3/8" SPLIT LOC | 6 | 276541 | SS | 4 |
| 606742 HANDLE 606751 BEARING 700989 CRANK NUT 276892 3/16" DIA x 1 1, 276892 COTTERLESS 276892 5/8-11 x 6" FU 700445 BORING CAP 70045 DOWEL PIN 260 CAP PIN RETA 260 CAP PIN RETA 700397 6' LONG CHAIN 701079 FLUID ASSEMI 701079 FLUID ASSEMI 701079 FLUID ASSEMI 701079 G" LANYARD 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LOC | 10 | 700985 | CHAIN TENSION BLOCK | _ |
| 606751 BEARING 700989 CRANK NUT 275862 3/16" DIA x 1 1. 276892 COTTERLESS 276892 5/8-11 x 6" FU 700445 BORING CAP 27697 DOWEL PIN 276997 DOWEL PIN 276997 DOWEL PIN 276997 JOWEL PIN 276997 DOWEL PIN 276997 JOWEL PIN 276997 JOWEL PIN 276997 SIRX 2" CHAIN 276997 STRAINER 560081 1/4-20 x 3/4" HI 276073 6" LANYARD 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LOG 7179 3/8" SPLIT LOG 7179 3/8-16 x 1" SO | 11 | 606742 | HANDLE | _ |
| 700989 CRANK NUT 275862 3/16" DIA x 1 1. 276892 COTTERLESS 276592 5/8-11 x 6" FU 700445 BORING CAP 27697 DOWEL PIN 276997 DOWEL PIN 276891 3/8" x 2" LONG 700397 6" LONG CHAIR 701079 FLUID ASSEMI 276591 3/8" x 1" CHAIN 276591 3/8" x 1" CHAIN 701079 FLUID ASSEMI 276073 6" LANYARD 700449 ENGINE & MO 701397 SPACER 701397 SPACER 7179 3/8" SPLIT LOC 7179 3/8" SPLIT LOC 7179 3/8" SPLIT LOC | 12 | 606751 | BEARING | 1 |
| 275862 3/16" DIA x 1 1. 276892 COTTERLESS 276592 5/8-11 x 6" FU 700445 BORING CAP 276481 THRUST BEAF 27697 DOWEL PIN 276891 3/8" x 2" LONG 700397 6" LONG CHAIR 276917 3/8" x 1" CHAIR 275917 STRAINER 560081 1/4-20 x 3/4" H 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LOG 7179 3/8" SPLIT LOG | 13 | 700989 | CRANK NUT | 1 |
| 276892 COTTERLESS 276592 5/8-11 x 6" FU 700445 BORING CAP 276481 THRUST BEAF 276097 DOWEL PIN 276097 CAP PIN RETA 276891 3/8" x 2" LONG 701079 FLUID ASSEMI 275917 STRAINER 560081 1/4-20 x 3/4" H 276073 6" LANYARD 700449 ENGINE & MO 701397 SPACER 701397 SPACER 7179 3/8" SPLIT LOG 7179 3/8" SPLIT LOG 7179 3/8" SPLIT LOG | 14 | 275862 | 3/16" DIA x 1 1/2" ROLL PIN | 1 |
| 276592 5/8-11 x 6" FU 700445 BORING CAP 276481 THRUST BEAF 276097 DOWEL PIN 260 CAP PIN RETA 276891 3/8" x 2" LONG 700397 6" LONG CHAII 276591 3/8" x 1" CHAIN 701079 FLUID ASSEM 276917 STRAINER 560081 1/4-20 x 3/4" H 700449 ENGINE & MO 701397 SPACER 7179 3/8" SPLIT LOG 7179 3/8" SPLIT LOG 775118 3/8-16 x 1" SO | 15 | 276892 | | 1 |
| 700445 276481 276097 260 276891 700397 701079 276591 701079 276073 10713 700449 701397 701397 701397 701397 701397 | 16 | 276592 | | 1 |
| 276481 276097 260 276891 700397 276591 701079 275917 560081 560081 570449 701397 701397 7179 | 17 | 700445 | BORING CAP | 1 |
| 276097 260 260 276891 700397 276591 701079 275917 560081 276073 10713 700449 701397 7179 | 18 | 276481 | | 2 |
| 260 276891 700397 276591 701079 275917 560081 276073 10713 701397 701397 7179 | 19 | 276097 | DOWEL PIN | 1 |
| 276891 700397 276591 701079 275917 560081 276073 10713 700449 701397 7179 | 20 | 260 | CAP PIN RETAINER | 1 |
| 700397 276591 701079 275917 560081 276073 10713 700449 701397 7179 | 21 | 276891 | 3/8" x 2" LONG DETENT PIN | _ |
| 276591 701079 275917 560081 276073 10713 700449 701397 7179 7179 | 22 | 700397 | 6' LONG CHAIN | _ |
| 701079 275917 560081 276073 10713 700449 701397 277198 7179 | 23 | 276591 | 3/8" x 1" CHAIN SHACKLE | 1 |
| 275917 560081 276073 10713 700449 701397 7179 7179 | 24 | 701079 | FLUID ASSEMBLY | 1 |
| 560081 276073 10713 700449 701397 277198 7179 | 25 | 275917 | STRAINER | 1 |
| 276073 10713 700449 701397 277198 7179 | 26 | 560081 | 1/4-20 x 3/4" HHCS | 2 |
| 10713 700449 701397 277198 7179 275118 | 27 | 276073 | 6" LANYARD | 1 |
| 700449 701397 277198 7179 275118 | 28 | 10713 | 3/16" FLAT WASHER | 1 |
| 701397 277198 7179 275118 | 29 | 700449 | | 1 |
| 277198 7179 275118 | 30 | 701397 | SPACER | 2 |
| 7179 275118 | 31 | 277198 | 3/8-16 X 3 3/4" SHCS | 4 |
| 275118 | 32 | 7179 | 3/8" SPLIT LOCK WASHER | 2 |
| | 33 | 275118 | 3/8-16 x 1" SOCKET HEAD CAP SCREW | 2 |



| ltem | A N | Description | Qty |
|------|--------|-----------------------|-----|
| ~ | 277193 | EARTHQUAKE E43 ENGINE | - |
| 2 | 260 | CAP PIN RETAINER | 1 |
| 3 | 220366 | POWER ADAPTOR | 1 |
| 4 | 701366 | MOUNT ASSY | 1 |
| 5 | 700117 | SHAFT BUSHING | 1 |
| 9 | 275420 | DOWEL PIN | 1 |
| 7 | 6513 | #10-24 SHCS | 1 |

1661 Hole Cutter Operation & Service Manual





Wheeler-Rex • Ashtabula, Ohio Tel: 800-321-7950 • Fax: 440-992-2925 wheeler@wheelerrex.com • www.wheelerrex.com

Choosing the Shell Cutter

There are three different types of shell cutters.



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 3395 |
| 4 1/2" | 3450 |
| 6" | 3595 |
| 6 1/2" | 3650 |

For Clay and Concrete



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 6395 |
| 4 1/2" | 6450 |
| 6" | 6595 |
| 6 1/2" | 6650 |
| 8" | 6800 |

For Reinforced Concrete, Clay, Ductile Iron and Cast Iron



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 4395 |
| 4 1/2" | 4450 |
| 6" | 4595 |
| 6 1/2" | 4650 |
| 8" | 4800 |

For Plastic

Changing the Shell Cutter



Remove the two (2) screws from the arbor.



Loosen the set screw with the Allen key and insert pilot drill. Make sure pilot drill is aligned for the set screw to tighten on drill flat.



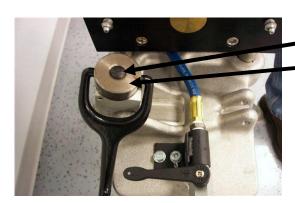
Attach the shell cutter with the two (2) screws.

** Shell cutters & pilot drill are sold separately from the hole cutter unit.**

Hole Cutter Setup



Set the hole cutter on the pipe.



Screw

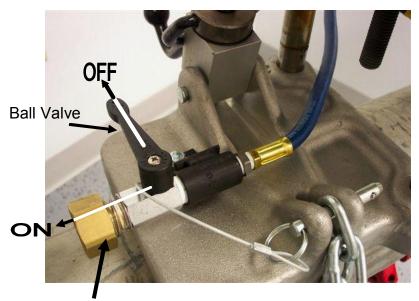
− Nut

Unscrew hand clamp until screw is flush with nut.



Make sure the pipe is nested properly in the saddle of the base casting. Pull chain under pipe and back to casting base. Place one chain link between casting and push pin through base and chain link. Tighten chain with hand crank.

Preparing for the Cut



Attach garden hose to valve connection. Turn water on at source. Keep ball valve "OFF" until ready to make cut. This ball valve can also be used to control the water flow.





Adjust flexible hose for water stream to point on shell cutter. This is to help keep the cutter cool as well as flush away chips.

Air Regulator with Filter and Oiler





From Compressor

Fill reservoir with detergent or non-detergent SAE #10 engine oil to the noted fill line (see page 7)

Air Regulator / Oiler

Air Pressure Regulator



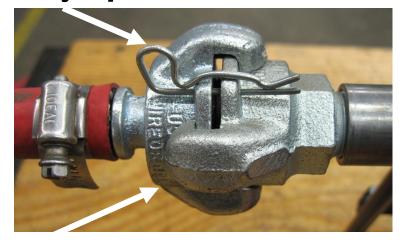
Oil Fill Line Air Pressure Adjust Knob

Connect Air Line to Regulator

From Air Supply or Compressor



Safety Clip



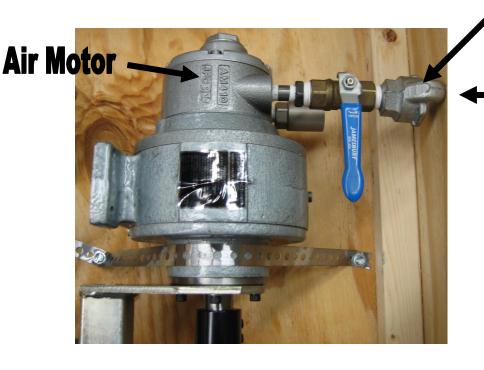
Make sure to use safety clips or wire tie air connections together. There are two pins required per connection.

Second safety clip is on the bottom

Make sure to use clips or wire on connection

- Connect Air Line

From Air Regulator
Assembly



Making the Cut

- 1. Fill oil reservoir
- 2. Connect air hose from compressor to air regulator using safety clips.
- 3. Connect air hose between air regulator and hole cutter using safety clips.
- 4. Turn on air compressor.
- 5. Turn air valve to ON position located on air motor.
- 6. Adjust air pressure as needed on air regulator.
- 7. Turn fluid valve to ON position.

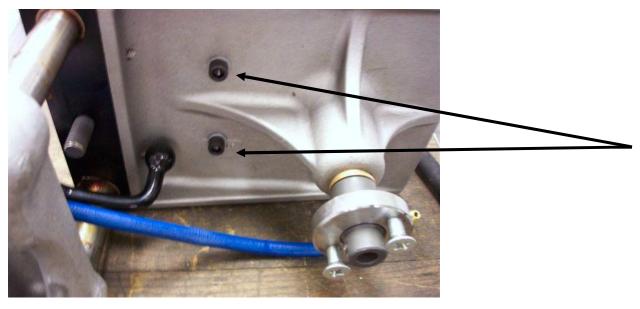


Slowly turn feed hand wheel in the clockwise position to lower the shell cutter. A heavy feed rate may damage shell cutter or pipe that is being cut. Allow shell cutter to cut material with a slow, steady turn of the feed wheel. If at anytime there are problems making the cut, stop cutting immediately.

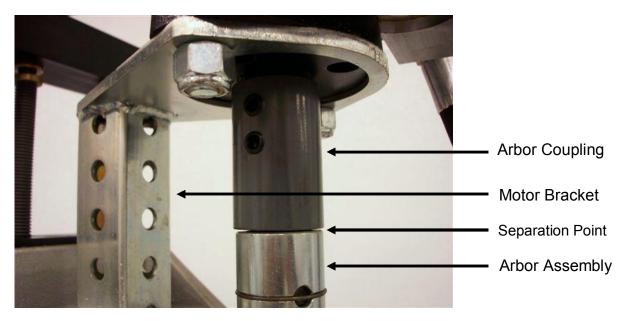
Other Options

The hole cutter is a modular system where the base, feed mechanism and arbor assembly remain the same. The power supply in interchangeable with four different options: Electric, gas, pneumatic, & hydraulic.

Here is how to change power supplies:

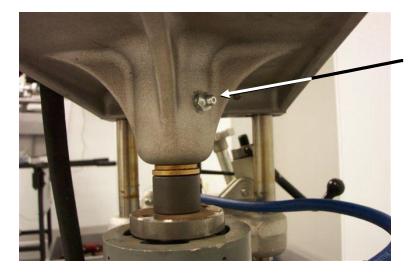


Remove the two (2) socket head cap screws from the platform.



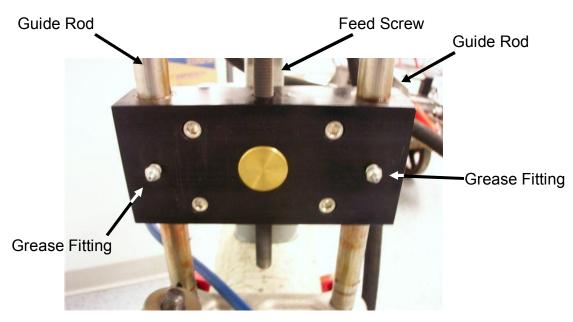
Separate the motor assembly from the arbor assembly. You can now replace the power assembly.

Maintenance



Grease Fitting

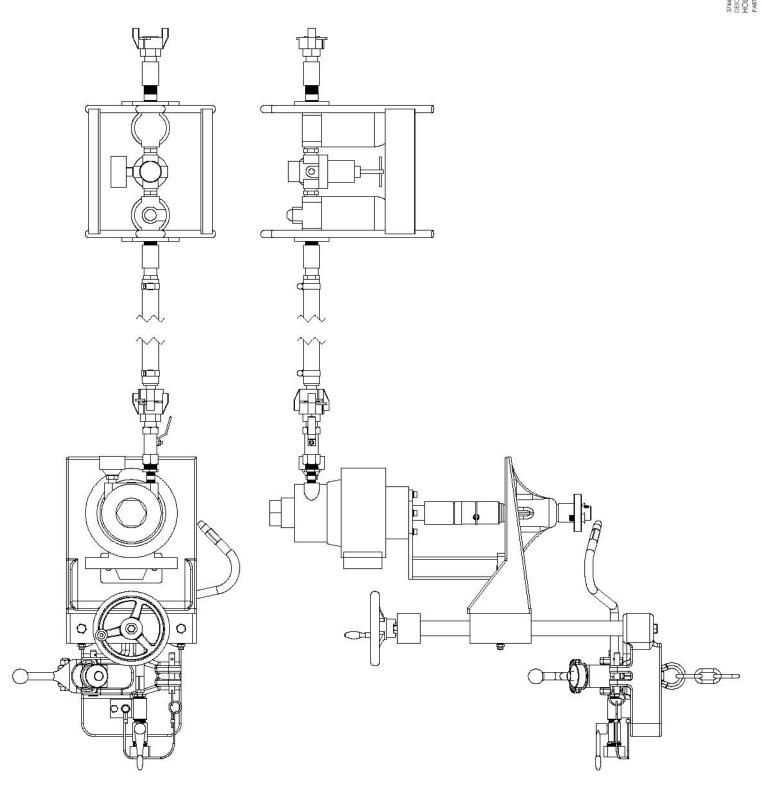
Grease arbor shaft prior to each use.



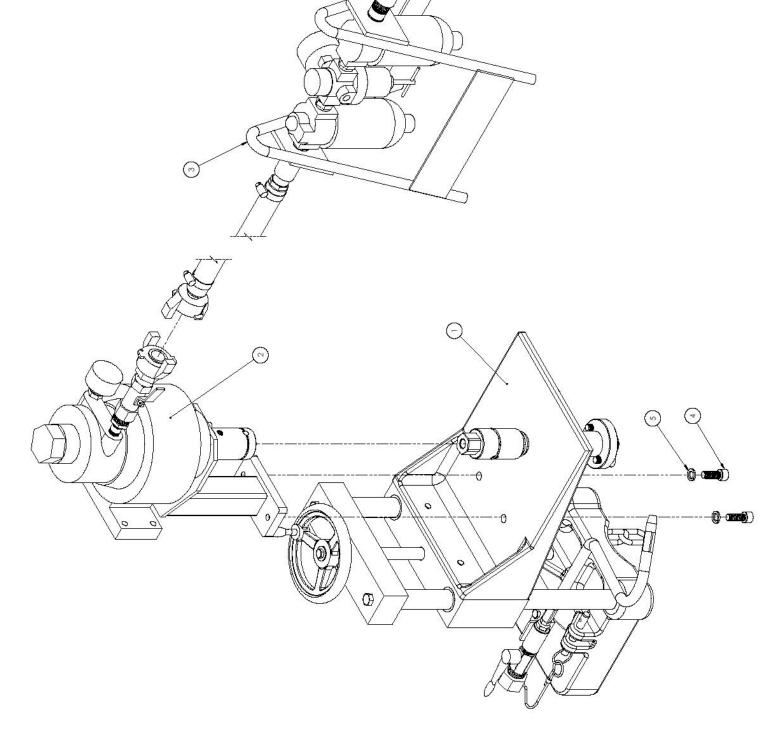
Grease guide rod bushings prior to each use. Clean guide rods after each use. Clean feed screw before and after each use.

Hole Cutter System Information

- ⇒ For cutting 4"-8" holes into clay tile, ductile iron, cast iron, plastic and reinforced concrete pipes from 6" 20" OD.
- ⇒ Complete with water valve assembly
- ⇒ Air Requirements
 - 70 80 psi (4.6-5.5 bar) minimum 100psi maximum
 - 50 60 cfm (1400-1700lpm) minimum
- ⇒ Set up time approximately 5-10 minutes
- ⇒ Cutting time approximately 5-10 minutes

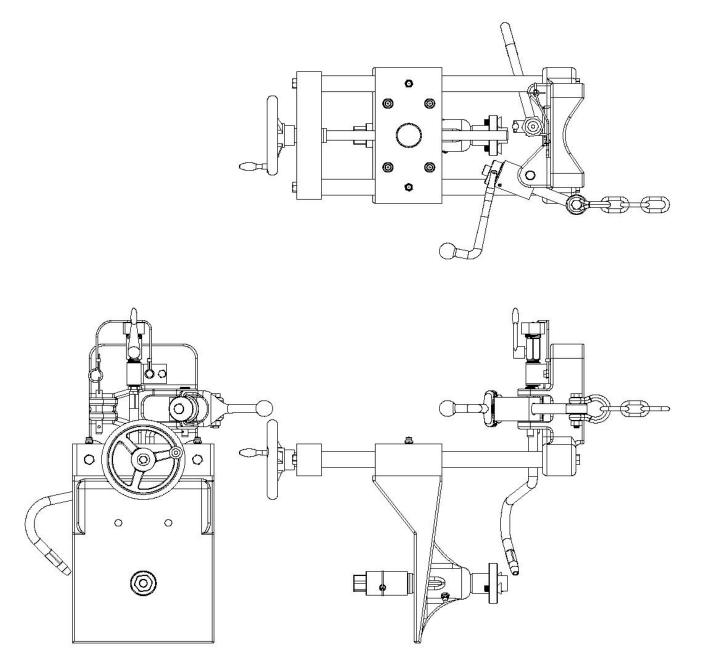




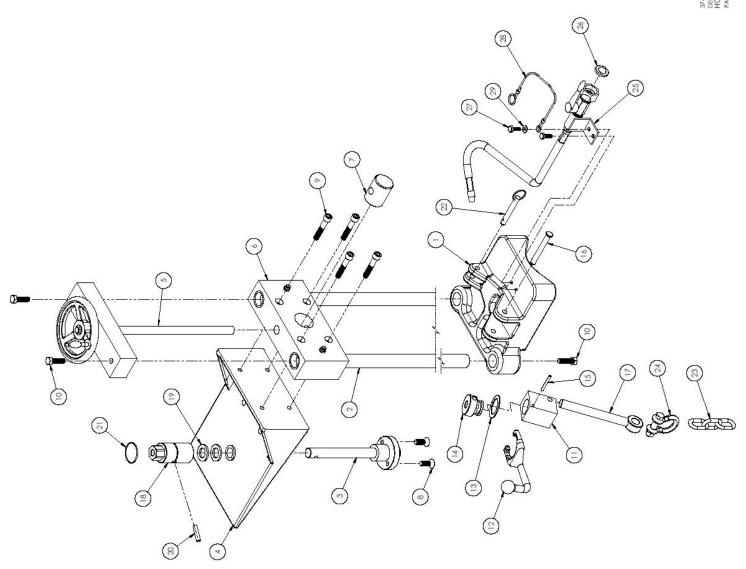


| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|-------------|----------------|-----------------------------------|-----|
| 1 | 700420 | HOLE CUTTER ASSEMBLY | 1 |
| 2 | 700453 | AIR MOTOR & MOUNT ASSEMBLY | 1 |
| 3 | 700489 | AIR CONTROL ASSEMBLY | 1 |
| 4 | 275118 | 3/8-16 x 1" SOCKET HEAD CAP SCREW | 2 |
| 5 | 6212 | 3/8" SPLIT LOCK WASHER | 2 |



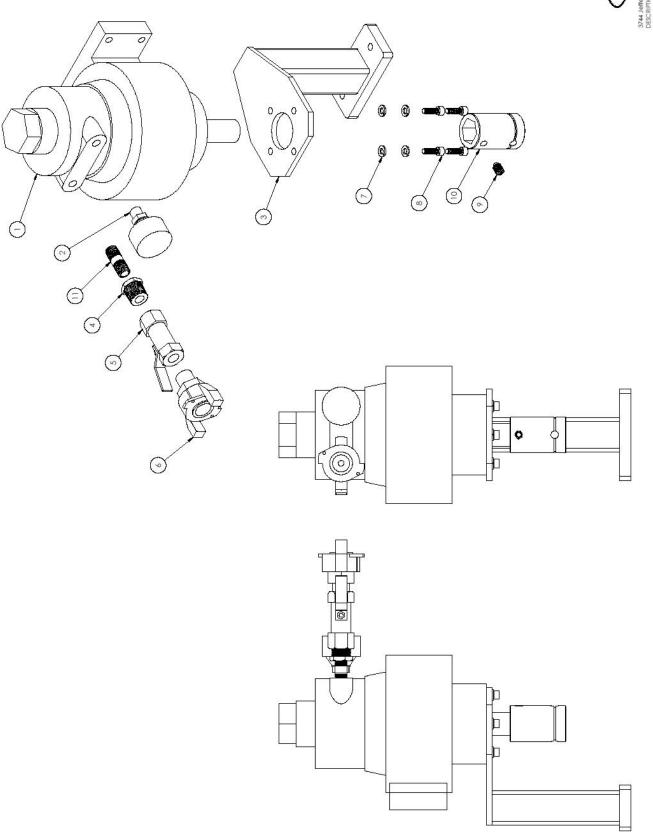






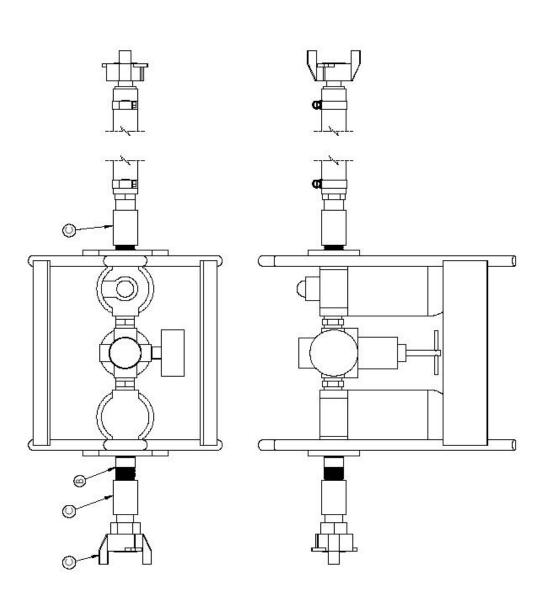
| ltem | N | Description | Qty |
|------|------------------------|--|-----|
| 1 | 700991 | Base (MACHINED) | 1 |
| 2 | 700431 | ROD | 2 |
| 3 | 700443 | ARBOR ASSEMBLY | 1 |
| 4 | 700441 | ARBOR HOUSING ASSEMBLY | 1 |
| 2 | 700438 | HEAD ASSEMBLY | 1 |
| 9 | 700433 | ELEVATOR ASSEMBLY | _ |
| 7 | 700436 | DRIVE BLOCK | 1 |
| 8 | 12011 | 3/8-16 x 1" PHILLIPS FLAT HEAD MACHINE SCREW | 2 |
| 6 | 276547 | 3/8-16 x 2" SHCS | 4 |
| 10 | 276541 | 3/8-16 x 1 1/4" SS HEX HEAD CAP SCREW | 4 |
| 11 | 286002 | CHAIN TENSION BLOCK | 1 |
| 12 | 606742 | HANDLE | 1 |
| 13 | 122909 | BEARING | 1 |
| 41 | 686002 | CRANK NUT | _ |
| 15 | 275862 | 3/16" DIA x 1 1/2" ROLL PIN | 1 |
| 16 | 276892 | COTTERLESS CLEVIS PIN 3/8" x 3" LONG | 1 |
| 17 | 276592 | 5/8-11 x 6" FULLY THREADED EYE BOLT | _ |
| 18 | 700445 | BORING CAP | _ |
| 19 | 276481 | THRUST BEARING (ST 2440-4) | 2 |
| 20 | 276097 | DOWEL PIN | 1 |
| 21 | 760 | CAP PIN RETAINER | 1 |
| 22 | 276891 | 3/8" x 2" LONG DETENT PIN | 1 |
| 23 | 26 800 2 | 6' LONG CHAIN | 1 |
| 24 | 16294 | 3/8" x 1" CHAIN SHACKLE | 1 |
| 25 | 701079 | FLUID ASSEMBLY | 1 |
| 26 | 275917 | STRAINER | 1 |
| 27 | 560081 | 1/4-20 x 3/4" HHCS | 2 |
| 28 | 276073 | 6" LANYARD | 1 |
| 29 | 10713 | 3/16" FLAT WASHER | 1 |
| | | | |



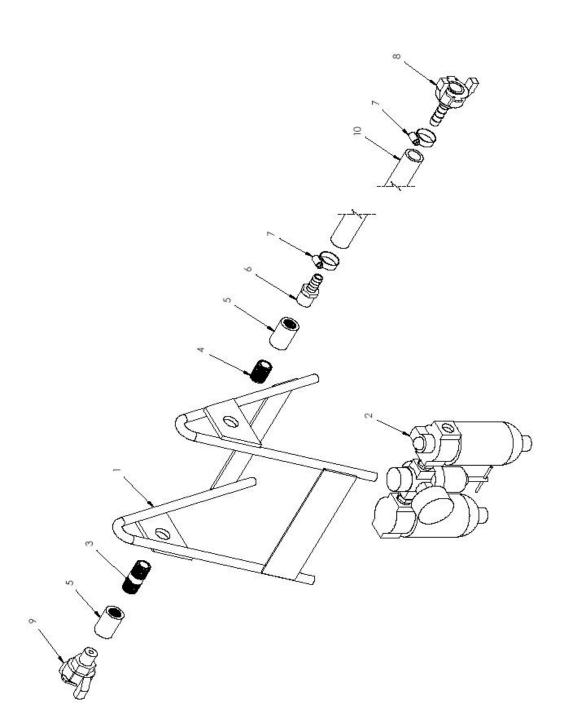


| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|-------------|----------------|----------------------------------|-----|
| 1 | 276522 | AIR MOTOR | 1 |
| 2 | 276546 | SILENCER | 1 |
| 3 | 700454 | AIR MOTOR MOUNT ASSEMBLY | 1 |
| 4 | 275670 | 1/2 × 1/4 FS SCRD HX BUSH | 1 |
| 5 | 275665 | 1/2" VALVE | 1 |
| 9 | 276544 | AIR COUPLING AM2 | 1 |
| 7 | 275105 | 1/4" SPLIT LOCK WASHER | 4 |
| 8 | 4181 | 1/4-20 x 3/4" SHCS | 4 |
| 6 | 276119 | 3/8-16 x 1/2" FULL DOG SET SCREW | 1 |
| 10 | 220366 | POWER ADAPTOR | 1 |
| Ξ | 276465 | 1/4" x 1 1/2" PIPE NIPPLE | _ |



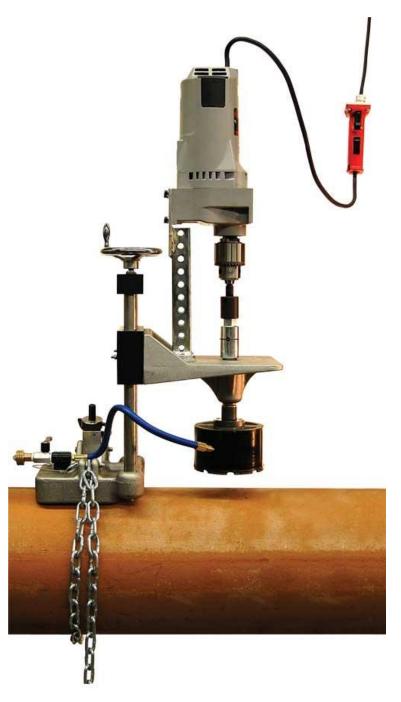






| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|-------------|----------------|--|-----|
| 1 | 700488 | STAND ASSEMBLY | 1 |
| 2 | 276559 | filter, regulator, & lubricator assembly | 1 |
| 3 | 275633 | 1/2 X 2" XH PIPE NIPPLE | 1 |
| 4 | 275669 | 1/2 x CLOSE PIPE NIPPLE | 1 |
| 5 | 275475 | 1/2" COUPLING | 2 |
| 9 | 275496 | 1/2" HOSE BARB | 1 |
| 7 | 276550 | HOSE CLAMP | 2 |
| 8 | 276545 | AIR COUPLING AM1 | 1 |
| 6 | 276544 | AIR COUPLING AM2 | 1 |
| 10 | 700490 | HOSE | 1 |

1662 Hole Cutter Operation & Service Manual





Wheeler-Rex ● Ashtabula, Ohio Tel: 800-321-7950 ● Fax: 440-992-2925 wheeler@wheelerrex.com ● www.wheelerrex.com

Choosing the Shell Cutter

There are three different types of shell cutters.



| Nominal Flore Size | i ait ito. |
|--------------------|------------|
| 4" | 3395 |
| 4 1/2" | 3450 |
| 6" | 3595 |
| 6 1/2" | 3650 |

Nominal Hole Size

For Clay and Concrete



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 6395 |
| 4 1/2" | 6450 |
| 6" | 6595 |
| 6 1/2" | 6650 |
| 8" | 6800 |

For Reinforced Concrete, Clay, Ductile Iron and Cast Iron



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 4395 |
| 4 1/2" | 4450 |
| 6" | 4595 |
| 6 1/2" | 4650 |
| 8" | 4800 |

For Plastic

Changing the Shell Cutter



Remove the two (2) screws from the arbor.



Loosen the set screw with the Allen key and insert pilot drill. Make sure pilot drill is aligned for the set screw to tighten on drill flat.



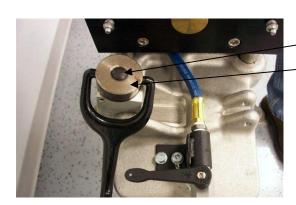
Attach the shell cutter with the two (2) screws.

** Shell cutters & pilot drill are sold separately from the hole cutter unit.**

Hole Cutter Setup



Set the hole cutter on the pipe.



Screw

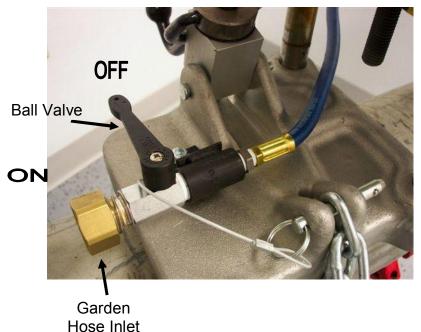
- Nut

Unscrew hand clamp until screw is flush with nut.



Make sure the pipe is nested properly in the saddle of the base casting. Pull chain under pipe and back to casting base. Place one chain link between casting and push pin through base and chain link. Tighten chain with hand crank.

Preparing for the Cut



Attach garden hose to valve connection. Turn water on at source. Keep ball valve "OFF" until ready to make cut. This ball valve can also be used to control the water flow.



Adjust flexible hose for water stream to point on shell cutter. This is to help keep the cutter cool as well as flush away chips.

Making the Cut

- 1. Turn fluid valve to "ON" position.
- 2. Pull handle trigger on power cord for power.

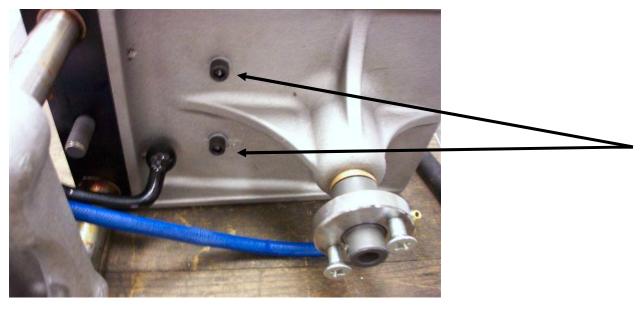


Slowly turn feed hand wheel in the clockwise position to lower the shell cutter. A heavy feed rate may damage shell cutter or pipe that is being cut. Allow shell cutter to cut material with a slow, steady turn of the feed wheel. If at anytime there are problems making the cut, stop cutting immediately.

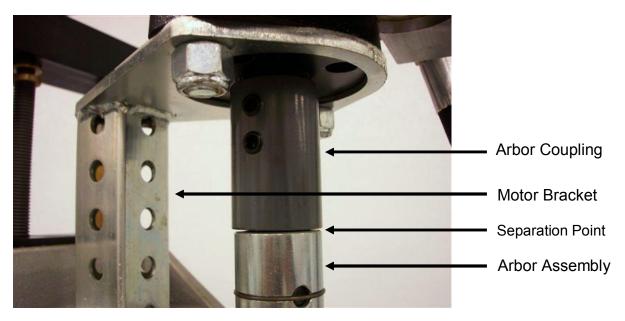
Other Options

The hole cutter is a modular system where the base, feed mechanism and arbor assembly remain the same. The power supply in interchangeable with four different options: Electric, gas, pneumatic, and hydraulic.

Here is how to change power supplies:

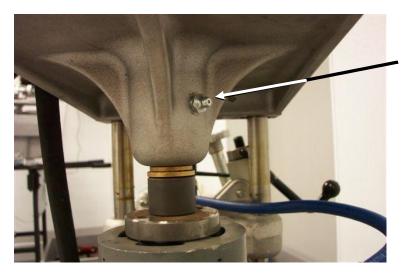


Remove the two (2) socket head cap screws from the platform.



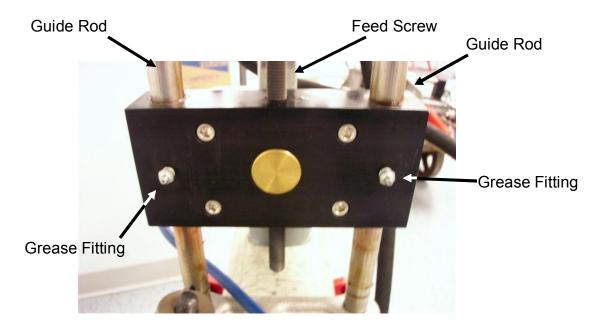
Separate the motor assembly from the arbor assembly. You can now replace the power assembly.

Maintenance

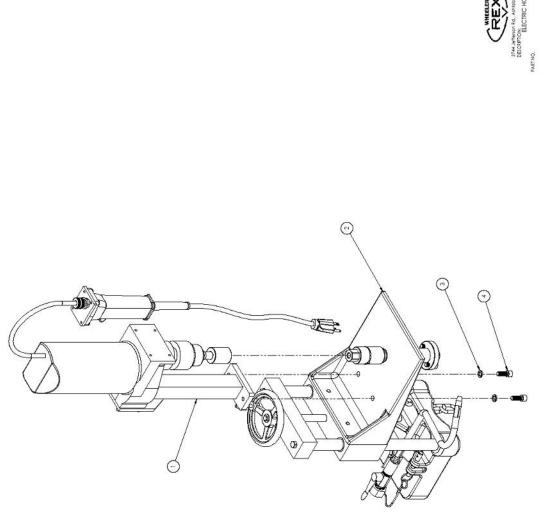


Grease Fitting

Grease arbor shaft prior to each use.

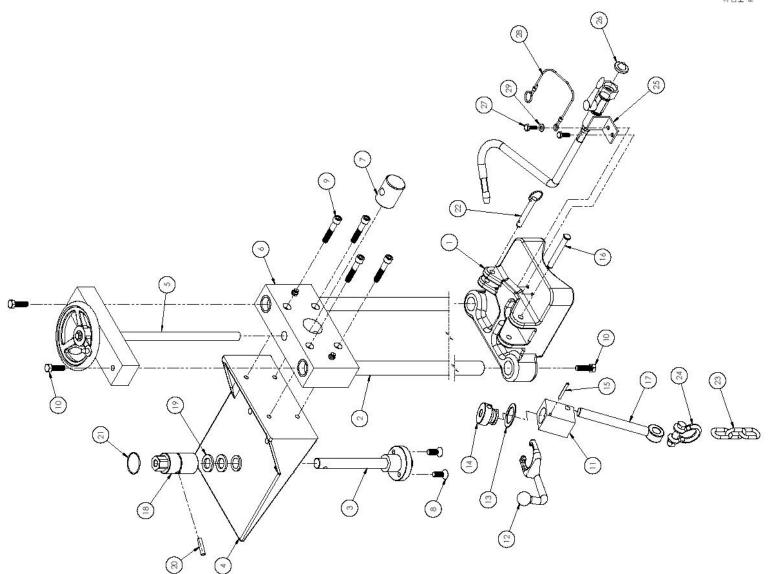


Grease guide rod bushings prior to each use. Clean guide rods after each use. Clean feed screw before and after each use.

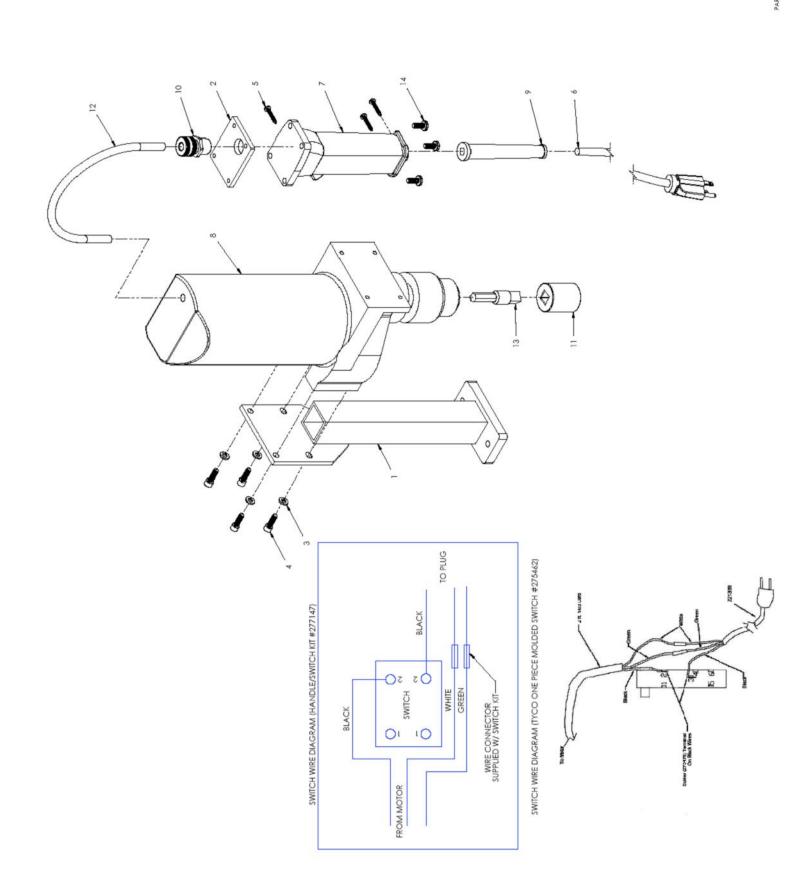


| ITEM NO. | PART NUMBER | DESCRIPTION | QTY |
|-------------|----------------|--|-----|
| 1 | 700456 | ELECTRIC MOTOR & MOUNT ASSEMBLY | 1 |
| 2 | 700420 | HOLE CUTTER ASSEMBLY | 1 |
| 3 | 7179 | 3/8" SPLIT LOCK WASHER | 2 |
| 4 | 275118 | 275118 3/8-16 x 1" SOCKET HEAD CAP SCREW | 2 |



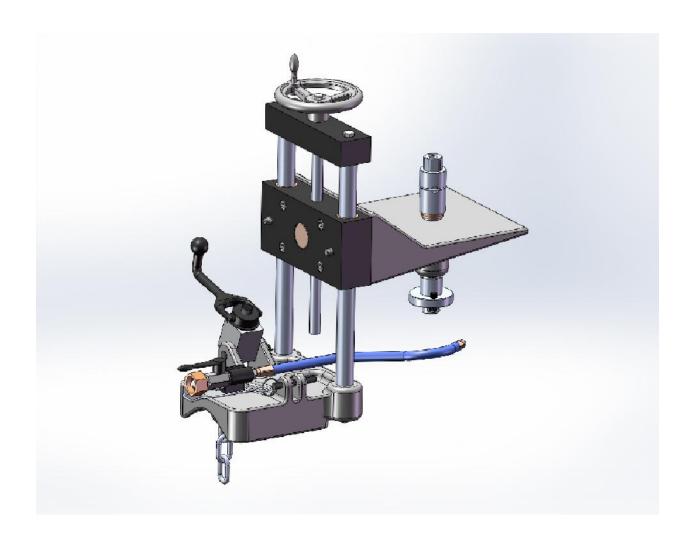


| ltem | P | Description | Qty |
|------|--------|--|-----|
| 7 | 700991 | Base (MACHINED) | 1 |
| 2 | 700431 | ROD | 2 |
| 3 | 700443 | ARBOR ASSEMBLY | 1 |
| 4 | 700441 | ARBOR HOUSING ASSEMBLY | 1 |
| 2 | 700438 | HEAD ASSEMBLY | 1 |
| 9 | 700433 | ELEVATOR ASSEMBLY | 1 |
| 7 | 700436 | DRIVE BLOCK | 1 |
| 8 | 12011 | 3/8-16 x 1" PHILLIPS FLAT HEAD MACHINE SCREW | 2 |
| 6 | 276547 | 3/8-16 x 2" SHCS | 4 |
| 10 | 276541 | 3/8-16 x 1 1/4" SS HEX HEAD CAP SCREW | 4 |
| 11 | 700985 | CHAIN TENSION BLOCK | 1 |
| 12 | 606742 | HANDLE | 1 |
| 13 | 606751 | BEARING | 1 |
| 14 | 700989 | CRANK NUT | _ |
| 15 | 275862 | 3/16" DIA x 1 1/2" ROLL PIN | 1 |
| 16 | 276892 | COTTERLESS CLEVIS PIN 3/8" x 3" LONG | _ |
| 17 | 276592 | 5/8-11 x 6" FULLY THREADED EYE BOLT | 1 |
| 18 | 700445 | BORING CAP | 1 |
| 19 | 276481 | THRUST BEARING (ST 2440-4) | 2 |
| 20 | 276097 | DOWEL PIN | 1 |
| 21 | 260 | CAP PIN RETAINER | _ |
| 22 | 276891 | 3/8" x 2" LONG DETENT PIN | 1 |
| 23 | 268002 | 6' LONG CHAIN | 1 |
| 24 | 276591 | 3/8" x 1" CHAIN SHACKLE | 1 |
| 25 | 701079 | FLUID ASSEMBLY | 1 |
| 26 | 275917 | STRAINER | 1 |
| 27 | 560081 | 1/4-20 x 3/4" HHCS | 2 |
| 28 | 276073 | 6" LANYARD | _ |
| 29 | 10713 | 3/16" FLAT WASHER | 1 |
| | | | |



| ITEM NO. | PART NUMBER | DESCRIPTION | ατγ |
|-------------|----------------|---------------------------------------|-----|
| - | 700457 | MOTOR MOUNT ASSEMBLY | 1 |
| 2 | 700532 | PLATE | 1 |
| 8 | 275105 | 1/4" SPLIT LOCK WASHER | 4 |
| 4 | 4181 | 1/4-20 x 3/4" SHCS | 4 |
| 5 | 276804 | 8-16 x 1 SLOTTED TORX HEAD 06-82-7326 | 3 |
| 9 | 221389 | CORD SET | 1 |
| 7 | 277147 | HANDLE & SWITCH KIT | 1 |
| 8 | 275466 | MILWAUKEE DRILL MOTOR 4262-1 | 1 |
| 6 | 276820 | CORD PROTECTOR 44-76-0140 | 1 |
| 10 | 275716 | CORD CONNECTOR | 1 |
| 11 | 275494 | 1" IMPACT SOCKET | 1 |
| 12 | 276553 | 2' 14-3 ELECTRICAL CORD | 1 |
| 13 | 275576 | ADAPTER | 1 |
| 14 | 276575 | 1/2-20 x 5/8" PAN HEAD SCREW | 4 |
| 15 | 275782 | RING TERMINAL C 01 411X **NOT SHOWN** | 3 |
| 16 | 276787 | CRIMP CONNECTOR **NOT SHOWN** | 2 |

1664 Hole Cutter Operation & Service Manual

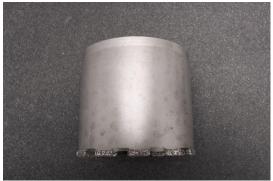




Wheeler-Rex ● Ashtabula, Ohio Tel: 800-321-7950 ● Fax: 440-992-2925 wheeler@wheelerrex.com ● www.wheelerrex.com

Choosing the Shell Cutter

There are three different types of shell cutters.



| For | Clav | and | Coi | ncrete |
|-----|------|-----|-----|--------|

| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 3395 |
| 4 1/2" | 3450 |
| 6" | 3595 |
| 6 1/2" | 3650 |



| Nominal Hole Size | Part No. |
|-------------------|----------|
| 4" | 6395 |
| 4 1/2" | 6450 |
| 6" | 6595 |
| 6 1/2" | 6650 |
| 8" | 6800 |

For Reinforced Concrete, Clay, Ductile Iron and Cast Iron



For Plastic

| | T |
|-------------------|----------|
| Nominal Hole Size | Part No. |
| 4" | 4395 |
| 4 1/2" | 4450 |
| 6" | 4595 |
| 6 1/2" | 4650 |
| 8" | 4800 |

Changing the Shell Cutter



Remove the two (2) screws from the arbor.



Loosen the set screw with the Allen key and insert pilot drill. Make sure pilot drill is aligned for the set screw to tighten on drill flat.



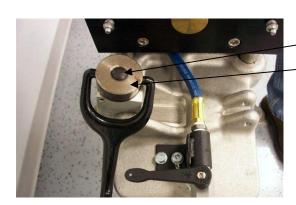
Attach the shell cutter with the two (2) screws.

** Shell cutters & pilot drill are sold separately from the hole cutter unit.**

Hole Cutter Setup



Set the hole cutter on the pipe.



Screw

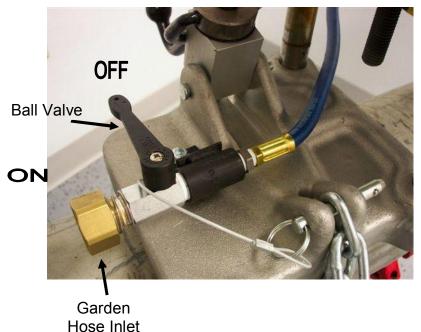
- Nut

Unscrew hand clamp until screw is flush with nut.



Make sure the pipe is nested properly in the saddle of the base casting. Pull chain under pipe and back to casting base. Place one chain link between casting and push pin through base and chain link. Tighten chain with hand crank.

Preparing for the Cut



Attach garden hose to valve connection. Turn water on at source. Keep ball valve "OFF" until ready to make cut. This ball valve can also be used to control the water flow.



Adjust flexible hose for water stream to point on shell cutter. This is to help keep the cutter cool as well as flush away chips.

Making the Cut

- 1. Turn fluid valve to "ON" position.
- 2. Pull handle trigger on power cord for power.

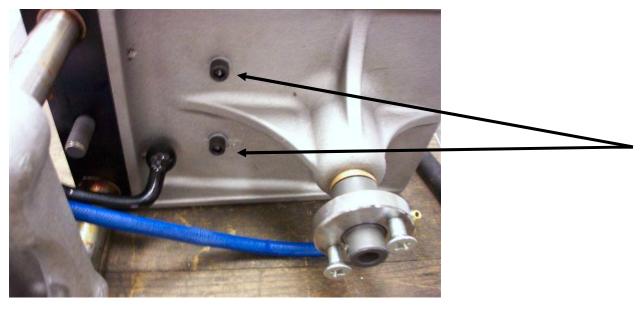


Slowly turn feed hand wheel in the clockwise position to lower the shell cutter. A heavy feed rate may damage shell cutter or pipe that is being cut. Allow shell cutter to cut material with a slow, steady turn of the feed wheel. If at anytime there are problems making the cut, stop cutting immediately.

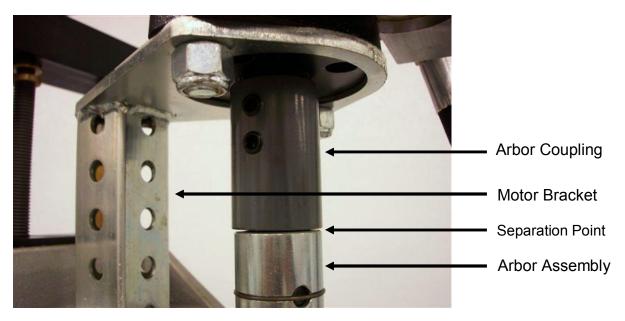
Other Options

The hole cutter is a modular system where the base, feed mechanism and arbor assembly remain the same. The power supply in interchangeable with four different options: Electric, gas, pneumatic, and hydraulic.

Here is how to change power supplies:

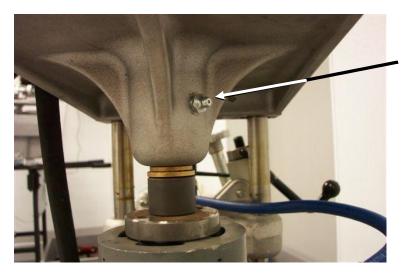


Remove the two (2) socket head cap screws from the platform.



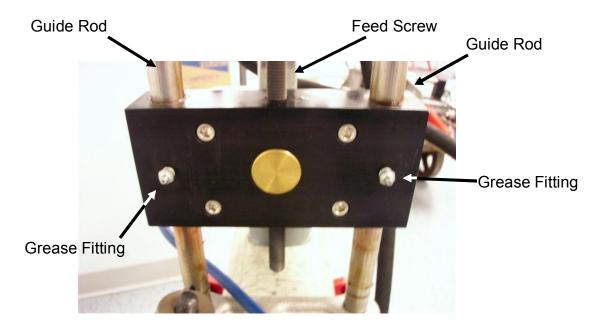
Separate the motor assembly from the arbor assembly. You can now replace the power assembly.

Maintenance



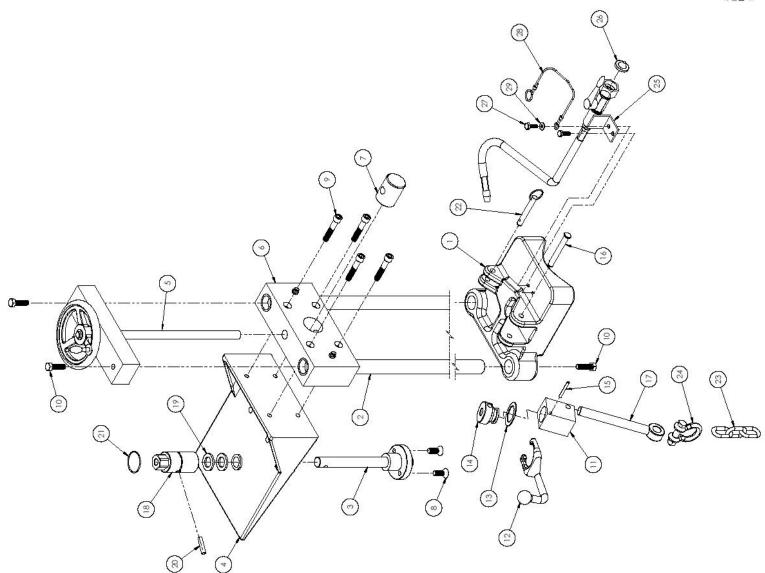
Grease Fitting

Grease arbor shaft prior to each use.



Grease guide rod bushings prior to each use. Clean guide rods after each use. Clean feed screw before and after each use.





| ltem | P | Description | Qty |
|------|--------|--|-----|
| 7 | 700991 | Base (MACHINED) | 1 |
| 2 | 700431 | ROD | 2 |
| 3 | 700443 | ARBOR ASSEMBLY | 1 |
| 4 | 700441 | ARBOR HOUSING ASSEMBLY | 1 |
| 2 | 700438 | HEAD ASSEMBLY | 1 |
| 9 | 700433 | ELEVATOR ASSEMBLY | 1 |
| 7 | 700436 | DRIVE BLOCK | 1 |
| 8 | 12011 | 3/8-16 x 1" PHILLIPS FLAT HEAD MACHINE SCREW | 2 |
| 6 | 276547 | 3/8-16 x 2" SHCS | 4 |
| 10 | 276541 | 3/8-16 x 1 1/4" SS HEX HEAD CAP SCREW | 4 |
| 11 | 700985 | CHAIN TENSION BLOCK | 1 |
| 12 | 606742 | HANDLE | 1 |
| 13 | 606751 | BEARING | 1 |
| 14 | 700989 | CRANK NUT | _ |
| 15 | 275862 | 3/16" DIA x 1 1/2" ROLL PIN | 1 |
| 16 | 276892 | COTTERLESS CLEVIS PIN 3/8" x 3" LONG | _ |
| 17 | 276592 | 5/8-11 x 6" FULLY THREADED EYE BOLT | 1 |
| 18 | 700445 | BORING CAP | 1 |
| 19 | 276481 | THRUST BEARING (ST 2440-4) | 2 |
| 20 | 276097 | DOWEL PIN | 1 |
| 21 | 260 | CAP PIN RETAINER | _ |
| 22 | 276891 | 3/8" x 2" LONG DETENT PIN | 1 |
| 23 | 268002 | 6' LONG CHAIN | 1 |
| 24 | 276591 | 3/8" x 1" CHAIN SHACKLE | 1 |
| 25 | 701079 | FLUID ASSEMBLY | 1 |
| 26 | 275917 | STRAINER | 1 |
| 27 | 560081 | 1/4-20 x 3/4" HHCS | 2 |
| 28 | 276073 | 6" LANYARD | _ |
| 29 | 10713 | 3/16" FLAT WASHER | 1 |
| | | | |