# 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.\*\*

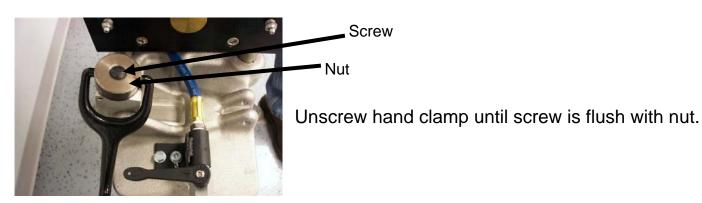
#### Hole Cutter Setup



Set the hole cutter on the pipe.

Screw

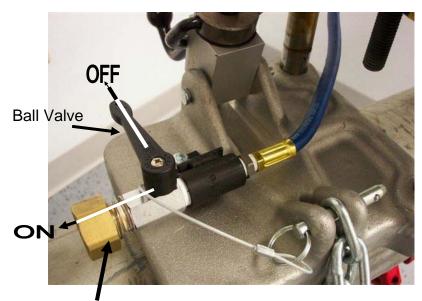
■ Nut





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** 



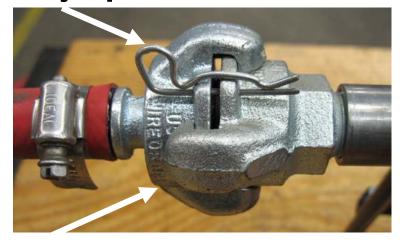
Oil Fill Line Air Pressure Adjust Knob

Connect Air Line to Regulator

From Air Supply or Compressor



#### **Safety Clip**



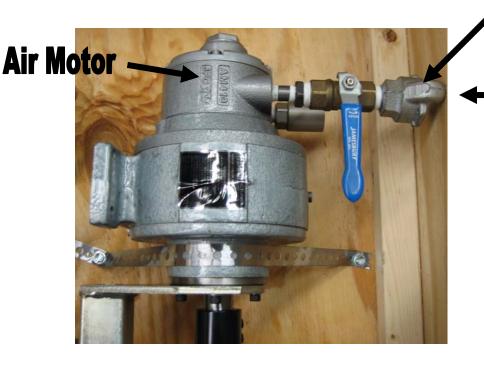
Make sure to use safety clips or wire tie air connections together. There are two pins required per connection.

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.

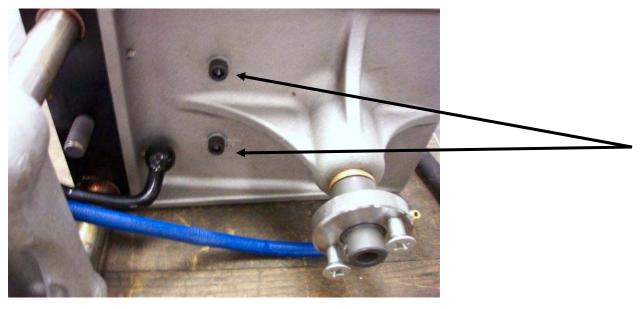


Slowly turn feed hand wheel in the clockwise position to lower the shell cutter. A heavy feed rate may damage shell cutter or pipe that is being cut. Allow shell cutter to cut material with a slow, steady turn of the feed wheel. If at anytime there are problems making the cut, stop cutting immediately.

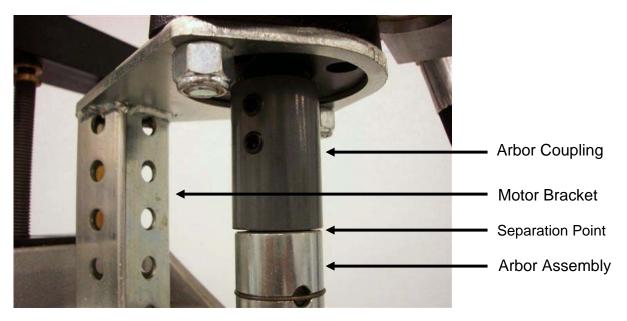
#### Other Options

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:

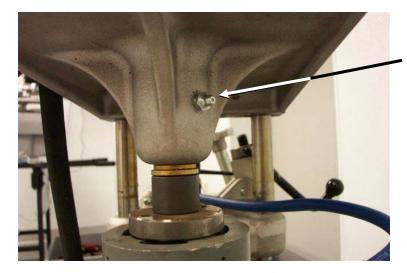


Remove the two (2) socket head cap screws from the platform.



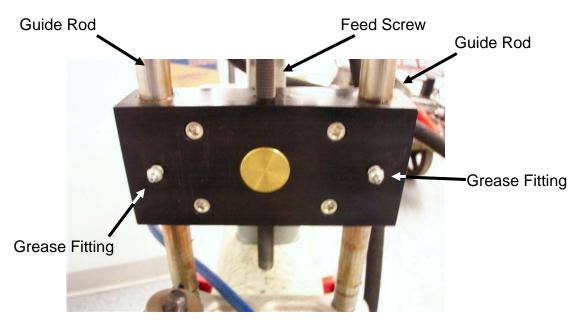
Separate the motor assembly from the arbor assembly. You can now replace the power assembly.

#### Maintenance



**Grease Fitting** 

Grease arbor shaft prior to each use.

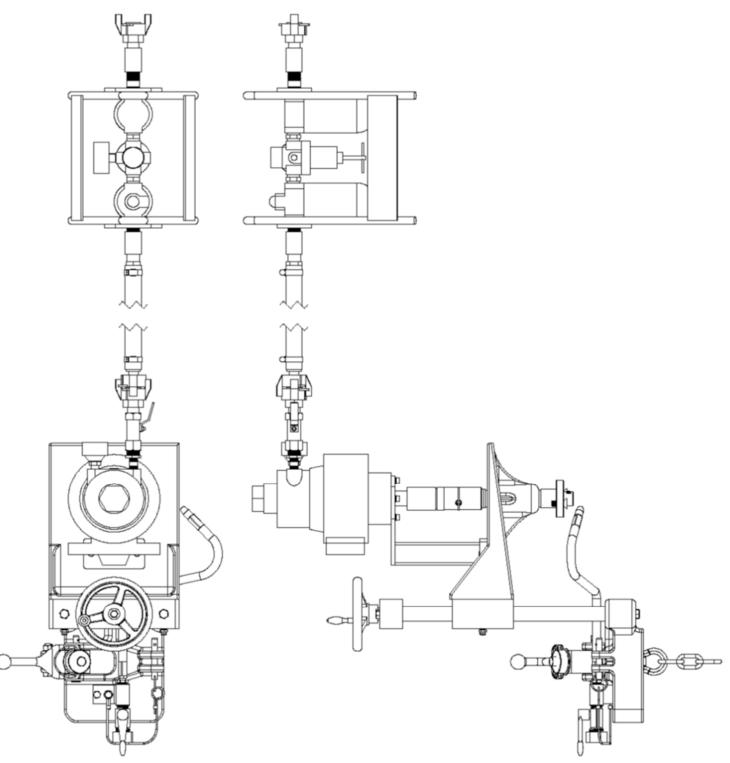


Grease guide rod bushings prior to each use. Clean guide rods after each use. Clean feed screw before and after each use.

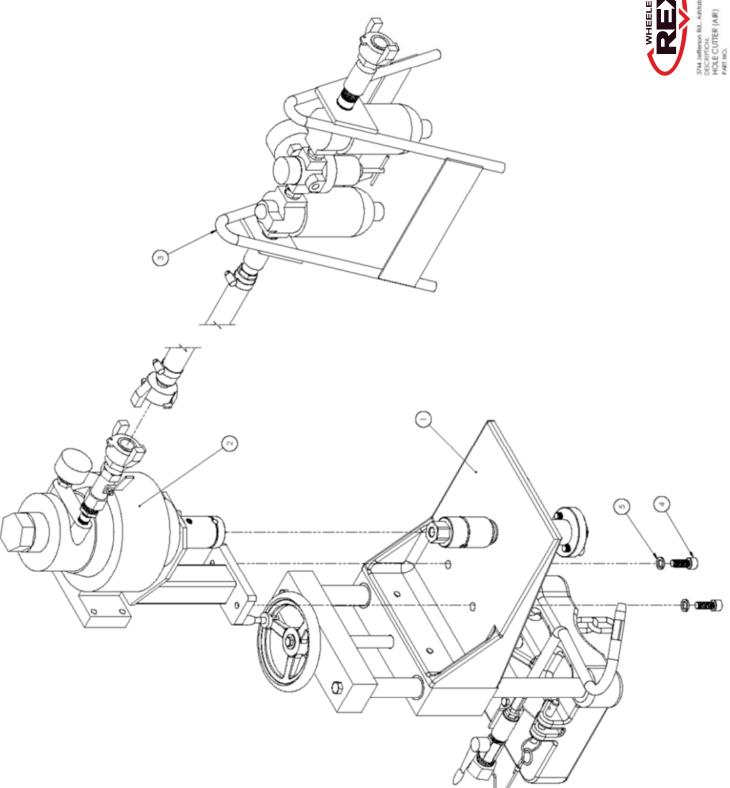
## Hole Cutter System Information

- ⇒ 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



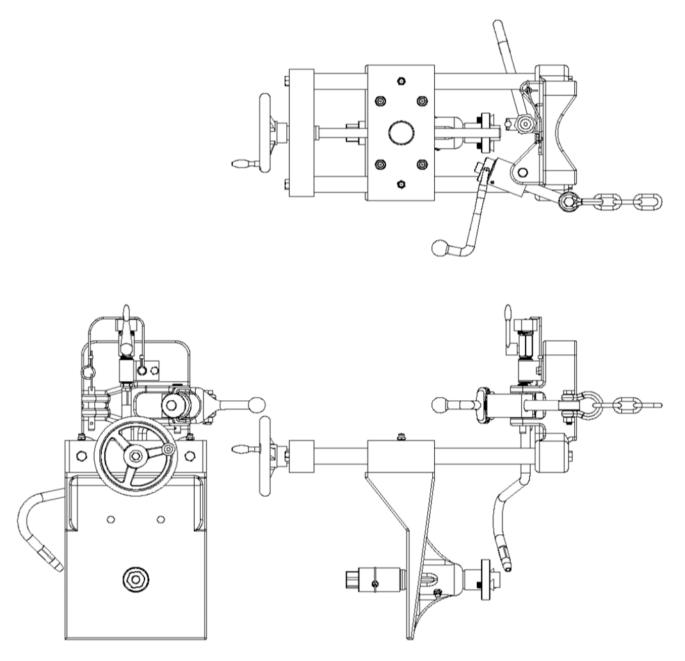




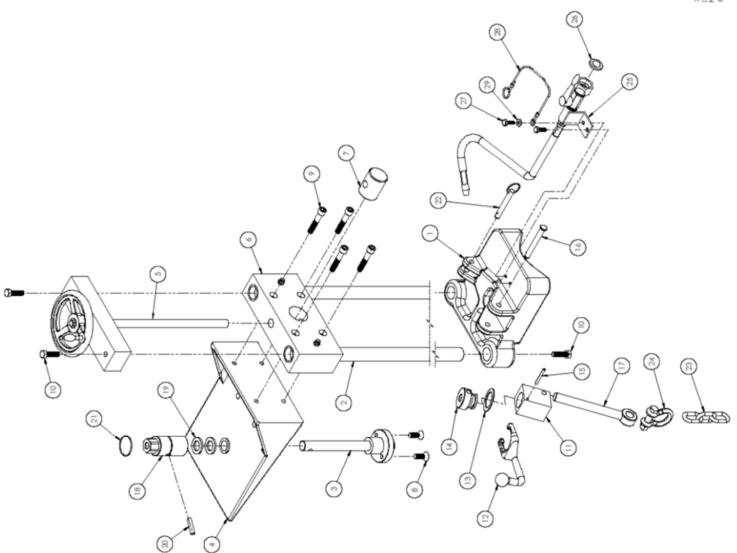


ITEM NO.	PART NUMBER	DESCRIPTION	QIY
<b>—</b>	700420	HOLE CUTTER ASSEMBLY	_
2	700453	AIR MOTOR & MOUNT ASSEMBLY	1
3	700489	AIR CONTROL ASSEMBLY	_
4	275118	3/8-16 x 1" SOCKET HEAD CAP SCREW	2
5	6212	3/8" SPLIT LOCK WASHER	2



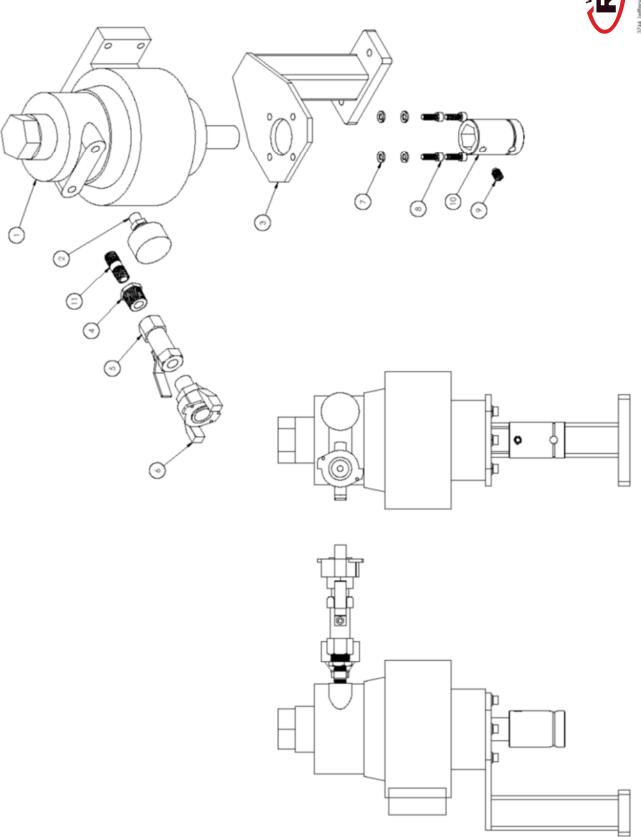






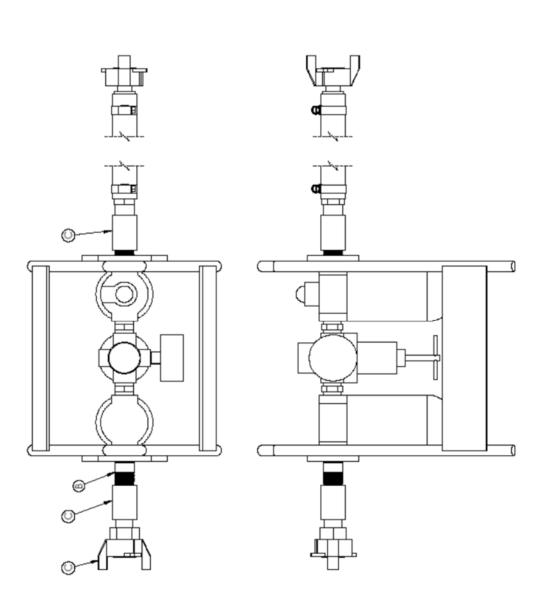
Item         PN         Description           1         700991         Base (MACHINED)           2         700431         ROD           3         700433         ARBOR HOUSING ASSEMBLY           4         7004341         ARBOR HOUSING ASSEMBLY           5         700433         ELEVATOR ASSEMBLY           6         700433         ELEVATOR ASSEMBLY           7         700436         DRIVE BLOCK           8         12011         3/8-16 x 1 PHILLIPS FLAT HEAD MACHINE SCREW           9         276547         3/8-16 x 1 14" SS HEX HEAD CAP SCREW           11         700985         CHAIN TENSION BLOCK           12         606742         HANDLE           13         606751         BEARING           14         700986         CHAIN TENSION BLOCK           15         276892         COTTERLESS CLEVIS PIN 3/8" x 3" LONG           16         276892         COTTERLESS CLEVIS PIN 3/8" x 3" LONG           17         276892         5/8-11 x 6" FULLY THREADED EYE BOLT           18         700445         BOSING CAPP           19         276892         5/8-11 x 6" FULLY THREADED EYE BOLT           20         276891         3/8" x 2" LONG DETENT PIN				
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276073 6" LAN 10713 3/16" F	27	560081	1/4-20 x 3/4" HHCS	2
10713 3/16" F	28	276073	6" LANYARD	_
	29	10713	3/16" FLAT WASHER	_



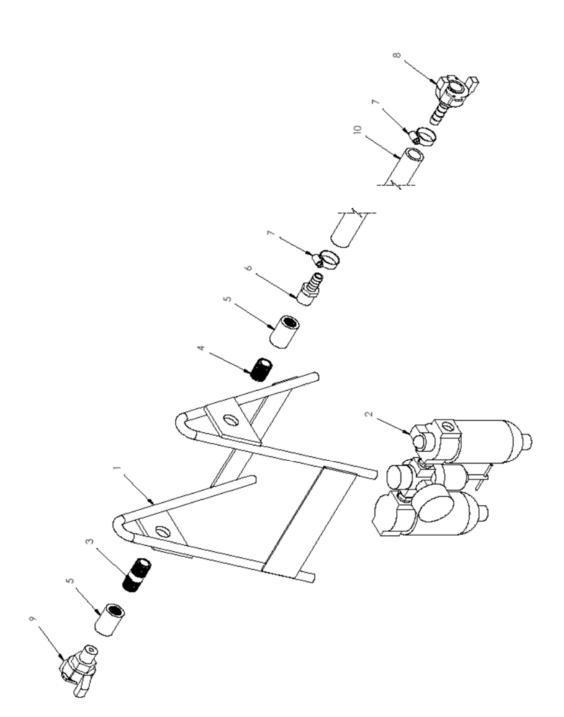


ITEM NO.	PART NUMBER	DESCRIPTION	QIY
1	276522	AIR MOTOR	1
2	276546	SILENCER	_
3	700454	AIR MOTOR MOUNT ASSEMBLY	1
4	275670	1/2 x 1/4 FS SCRD HX BUSH	1
2	275665	1/2" VALVE	1
9	276544	AIR COUPLING AM2	1
7	275105	1/4" SPLIT LOCK WASHER	4
8	4181	1/4-20 x 3/4" SHCS	4
6	276119	3/8-16 x 1/2" FULL DOG SET SCREW	1
10	220366	POWER ADAPTOR	1
11	276465	1/4" x 1 1/2" PIPE NIPPLE	1









ITEM NO.	PART NUMBER	DESCRIPTION	ΛΙΟ
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
2	275475	1/2" COUPLING	2
9	275496	1/2" HOSE BARB	
7	276550	HOSE CLAMP	2
8	276545	AIR COUPLING AM1	1
6	276544	AIR COUPLING AM2	1
10	700490	HOSE	<b>-</b>