

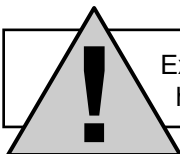
# Air Driven Sewer Pipe Tapping Machine Instruction and Maintenance Manual

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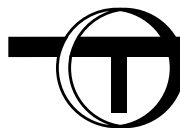
Thank you for your purchase of the Sewer Pipe Tapping Machine. Please read and understand this short operation manual. This machine will give you years of service if the instructions below are followed. Please read the accompanying Gast Air Motor instructions for care and maintenance of the air motor. Clean air and proper motor lubrication are essential for longevity of the air motor. Our goal is to serve you, our customer. If you have any questions please call us at 1-800-426-9341

This Tapping machine is intended to cut non-pressurized lines. This machine is not for use on metal pipe as the speed of the machine is beyond the cutting speed of most metal cutting holesaws.



## WARNING

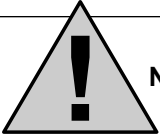
Extreme caution should be used when operating this piece of equipment. Rotating holesaws, cutters and pilot bits can cause injury if caution is not used.



**Transmate**

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## WARNING



**Note: Do not connect the Sewer Pipe Tapping Machine to its power source until the pilot bit and holesaw have been installed and you are ready to use the unit.**

**If the following key points are NOT followed this air motor will be damaged. Please read the cover sheet and Gast motor manual before using this drive.**

- Use only clean, dry, lubricated air to drive the motor.
- Air tool oil in the air supply is essential. Make sure air oil lubricator is filled with air tool oil.
- Locate the air oil lubricator as close to the drive as possible.
- Clean air is essential. Make sure your filters are clean.
- Sand, dirt or water entering the air motor will destroy it. Make sure no contaminants enters this motor.

**The Air Drive (Gast - Model # 4AM) is driven by an external compressor with the following minimum requirements:**

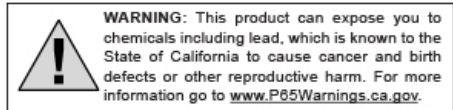
Air Output: 60-75 CFM (cubic feet per minute)  
Pressure Output: 80-100 p.s.i. (pounds per square inch)

\*Please note that pressure less than 80 p.s.i. will severely affect the power of the air motor and its ability to complete the cut.

\*An in-line oil lubricator is essential and should be located as close as possible to the air motor. Improper lubrication to the air motor will cause it to fail prematurely.

**The Air Drive Specifications (Gast - Model # 4AM):**

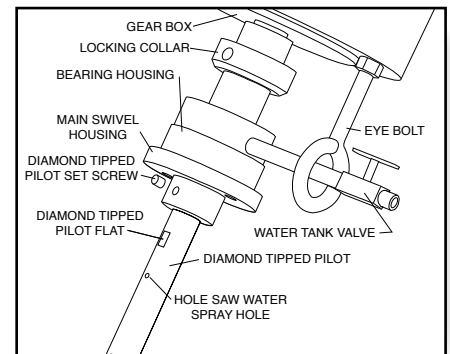
Horsepower: 1.75 h.p.  
Speed (RPM): 3000 free @ 60 cfm and 100 psi  
Weight: 30 lbs (approx)



## INSTALLING THE DIAMOND TIPPED PILOT BIT

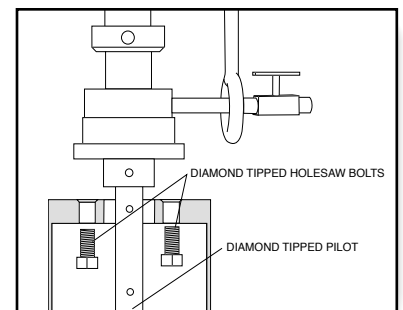
The diamond tipped pilot bit is used to cut cement, clay and reinforced cement pipe. A pressurized water tank connected to the bearing housing is needed to introduce water for flushing while the pilot bit is cutting. Failure to provide water to the diamond tipped pilot bit during cutting will result in immediate failure or rapid wear of the diamond tipped pilot bit.

Locate the flat on the side of the pilot then insert the blunt end of the pilot into the main swivel housing. Align the set screw hole with the pilot drill flat. The set screw must bear down on the pilot bit flat to ensure the pilot bit turns while cutting the pilot bit hole.



## INSTALLING THE DIAMOND TIPPED HOLESAW

Place the Diamond Tipped holesaw on the end of the main swivel housing. The boss on the end of the main swivel housing fits into the bore in the end of the holesaw. Next align the two 7/16" bolt holes in the holesaw with the two 3/8" threaded holes in the main swivel housing. Insert the two 3/8" x 3/4" long hex screws from inside the holesaw shell and thread them into the main swivel housing.

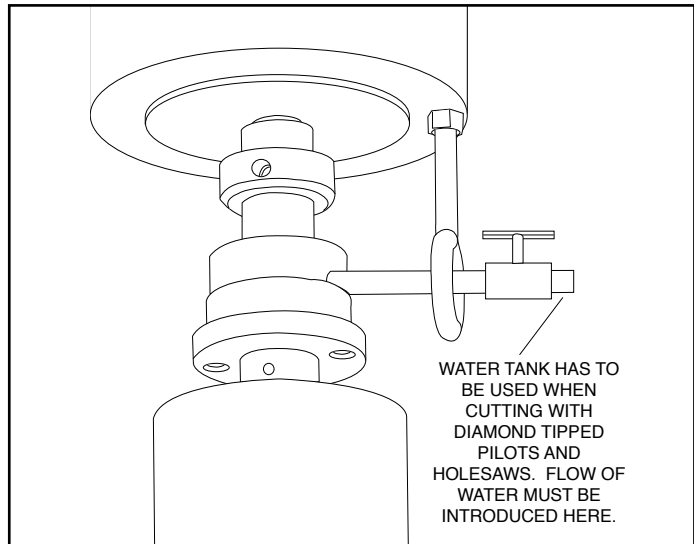


## CONNECTING THE PRESSURIZED WATER TANK

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**Note: Water needs to be introduced to the diamond tips when using the diamond tipped pilot and diamond tipped holesaws. Damage to the pilot bit and holesaw will result if water is not used while cutting.**

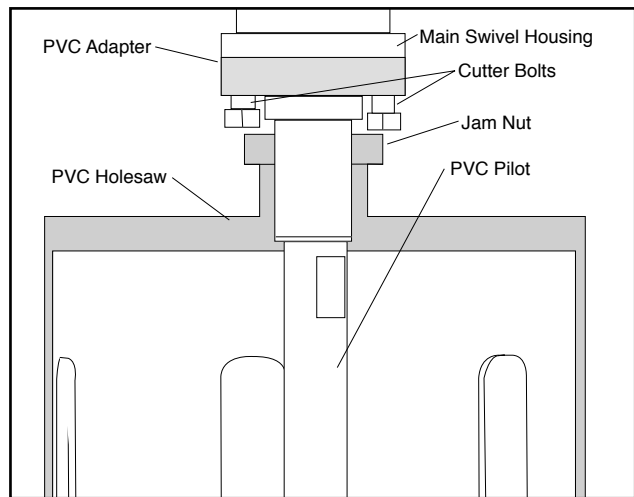
Connect the water tank quick disconnect to the nipple sticking out the side of the bearing housing. Make sure the nipple is sticking through the eye bolt that's threaded into the gearbox. Pressurize the water tank by using the pump handle on the tank.



## INSTALLING PVC ADAPTER, PVC PILOT & PVC HOLESAW

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The PVC adapter, which mates the PVC pilot and PVC holesaw to the Sewer Pipe Tapping Machine is easily installed by inserting the cutter screws up through the 7/16" holes and threading them into the main swivel housing. Next thread the PVC pilot into the end of the PVC adapter and tighten. Thread the Jam Nut onto the end of the PVC adapter until it bottoms out on the back of the threads, then turn it back one to two turns. This allows the Jam Nut to be backed away from the holesaw when removing the holesaw after the cut.



## CONNECTING THE AIR DRIVEN UNIT TO COMPRESSOR

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The Air Driven Sewer Pipe Tapping Machine is powered by a 1.75 horsepower motor. Operation is as simple as attaching the air hose from your compressor or other source to the end of the trigger handle. Care should be taken to ensure the holesaw and pilot bit have been properly connected before attaching the Sewer Pipe Tapping Machine to a power source.

## CUTTING CEMENT PIPE

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- Mark the cutting site using a center punch and hammer to make a dimple in the pipe wall.
- Turn on the pressurized water tank by rotating the water valve that is connected to the bearing housing.
- Set the end of the diamond tipped pilot bit into the dimple in the pipe.
- Start machine and continue cutting until hole is completed. Caution: Do NOT press down on the machine. Let the speed and weight of the machine do the cutting.
- Remove machine and turn off the water.

The “coupon” in almost all cases will remain in the holesaw.

## CUTTING PVC / HDPE PIPE

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The point on the PVC is self starting. Put the point of the bit on the pipe. Pull up on the lever to start the cutter rotating then push down on the machine to start the pilot. Once the pilot bit breaks through the pipe wall, ease up on the feed rate to allow the hole saw to cut through the pipe wall at maximum speed. If you push down on the holesaw, its speed will decrease and the cut will take longer.

Once the cut is complete release the lever and pull the holesaw out of the pipe. In most cases the “coupon” will remain in the holesaw. If handled properly, the PVC pilot should last for many cuts.

## MAINTENANCE AND CARE OF THE MACHINE

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If handled properly this unit should last for many years with little maintenance. The gearbox is lubricated for life. In the case that the gearbox lubrication is lost, please refer to the literature provide with this manual.

The air motor (Gast - Model # 4AM) literature provided with this manual should be read and carefully followed. Damage to the air motor will result if this information is not followed.

### **Manual Lubrication:**

Shut the air motor down and oil after every 8 hours of operation. Add 10-20 drops of oil to the air motor intake port.

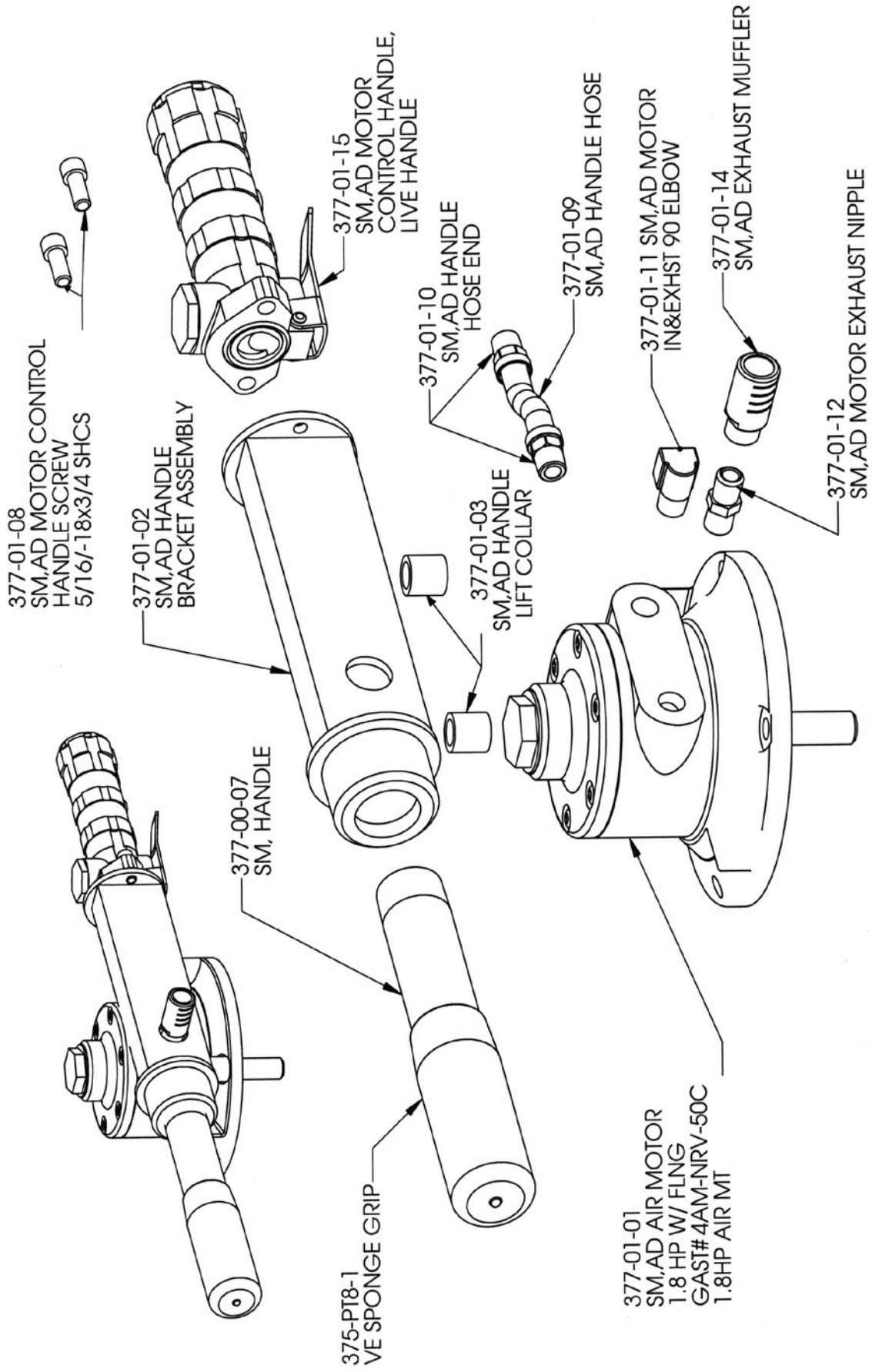
### **Lubrication:**

Use Gast # AD220 or a detergent SAE # 10 automotive engine oil for lubrication. Lubrication is necessary to prevent rust on all moving parts. Excessive moisture in the air line may cause rust or ice to form in the muffler when air expands as it passes through the motor. Install a moisture separator in the air line and an after cooler between compressor and air receiver to help prevent moisture problems.

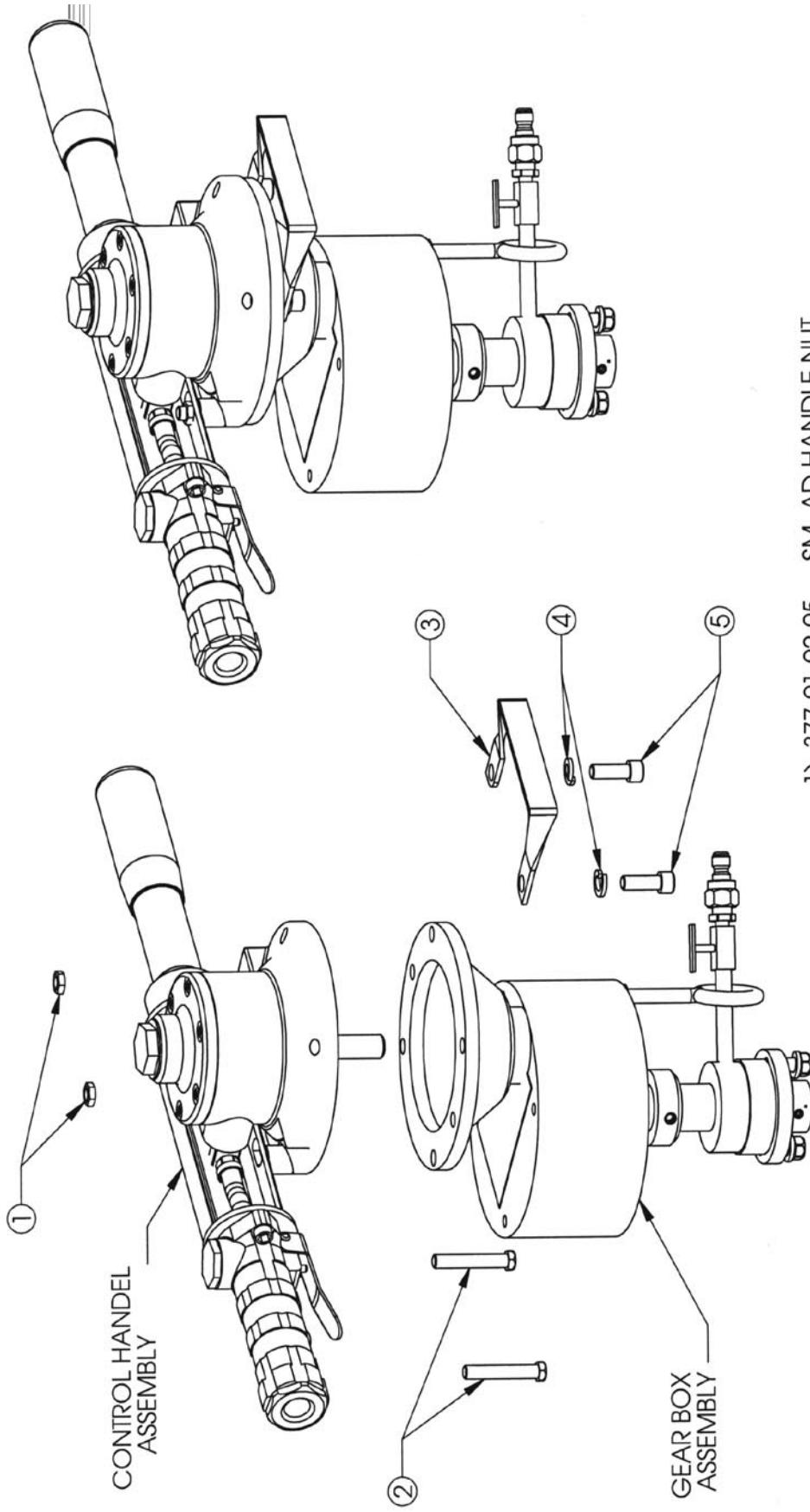
### **Shutdown and storage Procedure:**

- 1) Disconnect the air source from the drive.
- 2) Remove the muffler from the drive.
- 3) Use clean, dry air at low pressure to “flush out” condensates, such as water.  
**WARNING:** Solid or liquid material exiting the unit can cause eye or skin damage. Keep away from the air stream
- 4) Re-lubricate the air motor with a squirt of oil in the air intake port (Recommended oil, Mobil Almo 525). Rotate the shaft by hand several times (10 complete revolutions min).
- 5) Replace the muffler and cap or plug the intake port. The unit is now ready for storage.

# 377-01 SM, Sewer Pipe Drilling Machine (control handle assembly)

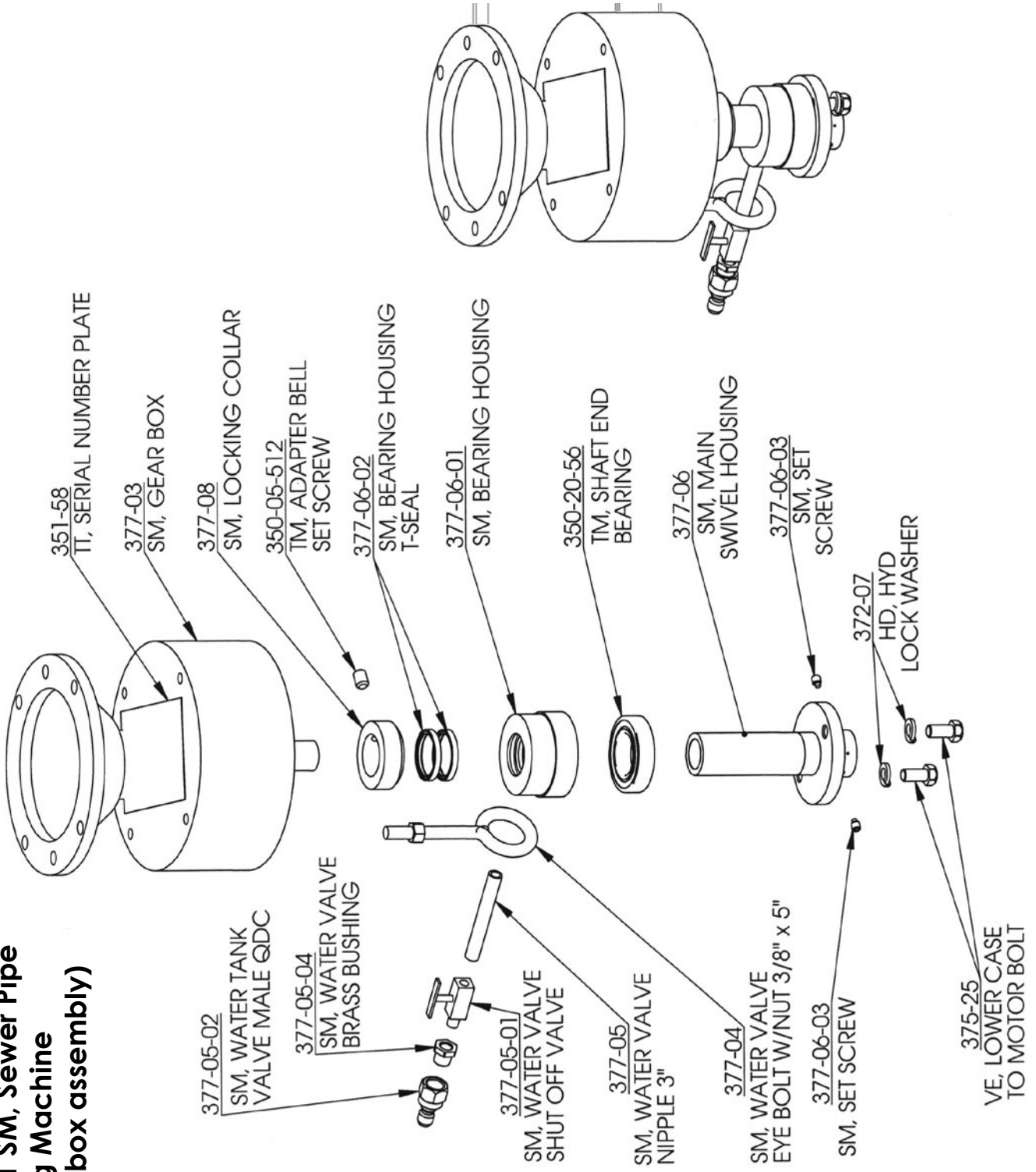


# 377-01 SM, Sewer Pipe Drilling Machine



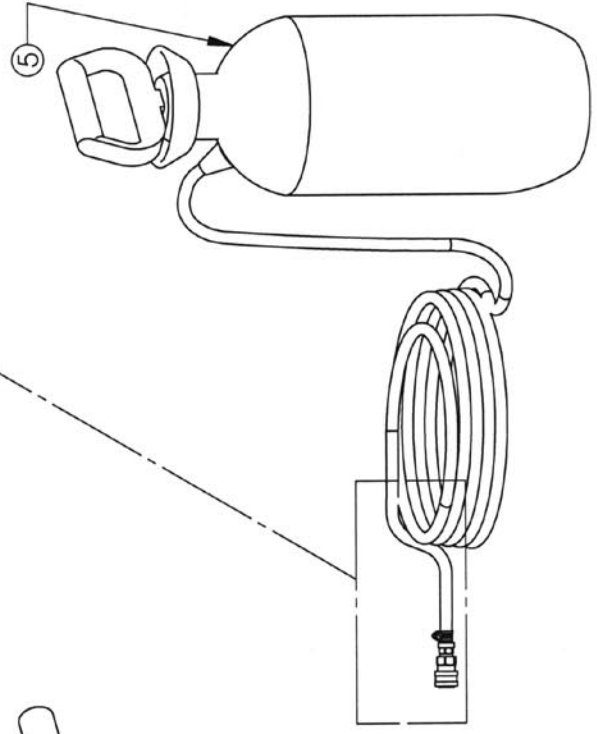
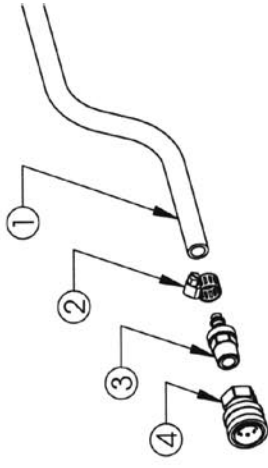
- 1) 377-01-02-05
  - 2) 377-01-02-04
  - 3) 377-09
  - 4) 372-07
  - 5) 377-12-01
- SM, AD HANDLE NUT  
 SM, AD HANDLE BOLT  
 SM, LIFTING HANDLE  
 HD, HYD LOCK WASHER  
 SM, MOTOR BOLT 3/8"-16 x 1" SHCS

**377-01 SM, Sewer Pipe  
Drilling Machine  
(gear box assembly)**



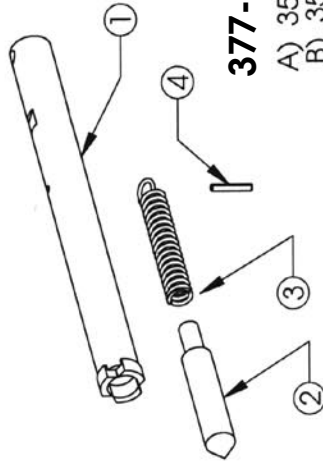
### 377-14 SM Water Tank Assembly

- 1) 835-3771401 HOSE, WATER TANK, VINYL
- 2) 377-05-05 SM, WATER TANK HOSE CLAMP
- 3) 377-01-10 SM, AD HANDLE HOSE END
- 4) 377-05-03 SM, WATER TANK VALVE FEMALE QDC
- 5) 835-37714 WATER TANK PRESSURE, 2-1/2 GAL.



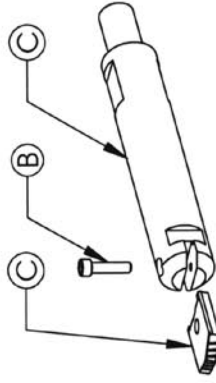
### 377-10 SM, Diamond Tipped Pilot

- 1) 377-10-01 SM, DIAMOND TIPPED PILOT BODY
- 2) 377-10-02 SM, DIAMOND TIPPED PILOT POINT
- 3) 377-10-03 SM, DIAMOND TIPPED PILOT SPRING
- 4) 375-09-03 VE, BEARING PLUG ROLL PIN



### 377-15 SM PVC Pilot Complete

- A) 350-03-08 TM, PILOT SPADE BIT 1 IN.
- B) 350-03-531 TM, SPADE BIT LOCK SCREW
- C) 377-15-01 SM, PVC PILOT ONLY



### 377-12 SM, Cutter Adapter PVC



### 350-52 TM, Jam Nut

(Set screws are included part number 350-52-1)

