



# OPERATION MANUAL TURBIKIT CHAIN CUTTER 2400



\*\*\*\*\*SAVE THIS MANUAL FOR REFERENCE IN THE FUTURE\*\*\*\*\*

## **WARRANTY**

The Turbikit chain cutter is warranted for one year from purchase against manufacturers defect.

## **GENERAL SAFETY RULES**

!!Failure to read and follow these instructions may result in serious injury!!

- Dress properly – Do not wear loose clothing
- Always wear the proper eye protection
- Maintain the cutter with care. Keep the cutter clean and ...for better and safer performance.
- Never use any grease, oil, gasoline, brake fluids, or any other solvent to clean or lubricate the cutter.
- Never operate a tool under the influence of alcohol, drugs or any other medication
- Use only recommended parts and accessories listed. The use of parts and accessories not listed may result in damage or personal injury

## **SPECIFIC SAFETY RULES**

- ALWAYS remember to thoroughly clean the pipe prior to using the chain cutter. Remove all rocks, sand, dirt, and other debris as best as possible.
- ALWAYS make sure to check the cutter for any loose or missing parts prior to use.
- ALWAYS check the size of the pipe
- ALWAYS check the size for which the chain cutter is set up for, this includes the chain
- It is recommended that while operating the cutter, it be observed by sewer inspection cameras
- NEVER test the operation of the cutter outside of a properly closed pipe.
- ALWAYS make sure the cutter is fully inside of the pipe before turning on.

## SPECIFIC SAFETY RULES (con't)

- ALWAYS reel the cutter back to the manhole while it is still spinning to avoid the chain getting hung up on an offset

## OPERATION

***Applications include:*** Roots, grease and scale

1. Very important to double check the size of the pipe to make sure the cutter is set up appropriately.
2. Connect HP hose to the rear of the chain cutter
3. Carefully lower the cutter into the **DOWNSTREAM** manhole so that the cutter moves against the flow of water.
4. Depending on the application, push the hose with the cutter attached up to the obstruction and then turn on the water pump. If that is not possible skip to step 5.
5. Once the cutter is completely in the sewer pipe turn on the water pump and increase the RPM's enough to enable the cutter to move up the line to the obstruction.
6. Listen carefully as the cutter will make a high pitch squeal, this indicates the cutter is spinning.
7. **KEEP THE CUTTER MOVING IN THE LINE AT ALL TIMES** to avoid damaging the pipe
8. Once the cutter has reached the obstruction increase the pressure
9. As the high pitch squeal bogs down to a hissing sound the cutter will need to be brought back towards the manhole enough for it to regain its momentum and continue to cut.
10. Never ram the cutter into an obstruction
11. Only continue upstream once the cutter easily passes thru the last cut area to avoid any hang-ups.
12. Be sure to bring the Turbikit Chain Cutter back to the manhole while the cutter is in operation to avoid a stationary piece of chain getting caught on something
13. Stop the water pump when the cutter is about 3 – 5 feet away from the manhole

14. Pull the remaining hose and cutter completely out of the pipe by hand.

## **CHAIN**

There are two different places for the Turbikit chain to attach to the cutter. One way is how the cutter comes set up. The other spot to attach the chain is right next to it, currently plugged with a set screw. Once the current holes get worn, the chain can be switched over.

## **CHAIN MEASUREMENTS**

1. **4" = 7 links**
2. **6" = 9 links**
3. **8" = 11 links**

## **CHAIN REPLACEMENT**

1. Remove the current bolts holding the chain in by unscrewing them counter-clockwise on the top and bottom of the cutter
2. Using an open link from each end of the chain align it over the top and bottom holes respectively
3. Use Red Loctite to secure the bolt and tighten as tight as you can get it by hand.

## **CHAIN CUTTER MAINTANENCE**

The Turbikit Chain Cutter is designed to be a low maintenance and require no lubrication. Never use any oil, gasoline, brake fluids, or any other solvent to clean or lubricate the cutter. Always make sure the inserts are free and clear of any debris.

1. Rinse cutter completely off when done using, paying special attention to the center pipe making sure there is no debris on it.

## **REMOVING FRONT INSERTS**

1. Align the turbine so that the elongated hole in the fins is over the insert.
1. Remove the inserts with the allen by turning counter-clockwise. Slight heat may need to be applied if they don't unscrew easily but be careful not to overheat

## CHAIN CUTTER MAINTANENCE (con't)

2. Use ***Blue Loctite*** and repeat the steps in reverse to install the inserts

## REMOVING THE REAR INSERTS

1. Locate the rear inserts in the body
2. Using the allen wrench provided, turn the inserts counter-clockwise. Slight heat may need to be applied if they don't unscrew easily but be careful not to overheat.
3. Use ***Blue Loctite*** and repeat the steps in reverse to install the inserts.