

**DIAMOND  
PRODUCTS**

**CURBCUTTER  
OPERATOR'S MANUAL**

**MODEL  
CC8000**

**(DECEMBER 2003)**

**1800748**

# CC8000 CURB CUTTER ATTACHMENT

## TABLE OF CONTENTS

<u>DESCRIPTION</u>	<u>Page #</u>
CURBCUTTER CONTROLS.....	3
BRAKE / PITCH CONTROL.....	3
BLADE SIZE.....	3
MAKING THE CUT.....	4
WATER SUPPLY.....	4
GREASE.....	4
REMOVING CURB CUTTER ATTACHMENT.....	5
TROUBLESHOOTING.....	6,7
WORKING DIMENSIONS.....	8,9,10
WARRANTY.....	Rear Cover

# OPERATING INSTRUCTIONS

Please review the operator's manual for the CC8000 rider saw for additional instructions (Part #1800452).

## CURBCUTTER CONTROLS:

Two sets of controls allow positioning the blade from either the drivers seat or from the front of the unit. Both sets are always active. As one faces either set of valves, the order of control from left to right is: Vertical, Horizontal, Roll, and Pitch. Speed is controlled by both engine speed and how far the levers are pushed. The levers will automatically return to the center position. **Note:** The cylinder driven roll motion is much quicker than the others at full flow.

## BRAKE / PITCH CONTROL

A hydraulic brake caliper and rotor are mounted at the pitch control shaft to further lock the pitch position. The caliper hydraulic pressure is supplied by using a line at the raise/lower cylinder. The cylinder is disconnected when the curb cutter is mounted. One of the cylinder raise/lower control buttons will activate and lock the brake on, and the other will depressurize it. A gage shows when the brake is energized. The brake should be applied only after the pitch position is confirmed. If the brake is not deactivated, pitch adjustment will be difficult or impossible. The rotor should be clean and dry for maximum holding power.

## BLADE SIZE

Blade guards are available for 24, 30, and 36 inch blades. With the 30 inch being standard. The 24 inch blade has less reach but is more rigid and may give a smoother cut. The 36 inch blade allows more reach but has more flex.

The larger blade is also more likely to interfere with the crown of the road and prevent lowering the blade to the desired level. A high crown or other road conditions may require the use of the 24 inch blade to avoid interference.

## MAKING THE CUT

- 1) Clean the curb area to provide a smooth surface for the rider saw. *An uneven roadbed can result in an uneven cut.*
- 2) Align the rider saw and the blade position to make the initial cut. A digital level is provided to help set the blade parallel to the roadbed.
- 3) Using the horizontal control, cut about halfway into the curb. At a slow steady travel speed, make the required length of cut. Return to the start point, realign and cut through the remaining depth. Some operators may prefer to make a single thru cut. Driving in reverse and pulling the blade through the cut is more stable. Driving forward and pushing the blade through the cut also works but is best reserved for short distances. Individual operator preferences will vary.
- 4) Most of the curb can now be broken out and removed.
- 5) Align the saw and the pitch angle to make the end cut. Using the horizontal control, cut through the curb.

## WATER SUPPLY

A water tank is provided with the unit and should be adequate for cutting a typical residential driveway. Take care to turn off the pump when not cutting to conserve water.

The tank can be bypassed with an external supply simply by attaching a hose to fittings at the rear of the unit.

## GREASE

Grease fittings (nine total) are at the left and right sides of the vertical and roll carriages, top and bottom of the horizontal carriage and at the pitch shaft bearing (1). Grease every 40 hours of operation. Two additional fittings are at the blade shaft pillow block. Grease these two every 8 hours of operation.

## REMOVING CURB CUTTER ATTACHMENT

The attachment can be removed by

- 1) Cap the pressure and tank lines to the control valves mounted at the operator's position (2 lines). The return to tank line from the bulkhead plate must also be capped. There is no need to remove any other hydraulic supply line. Consider marking the hoses for reference.
- 2) The brake line must be disconnected from the raise/lower cylinder and the cylinder reconnected (quick disconnects). Also disconnect the hose to the brake indicator gage. The gage can remain mounted.
- 3) The fasteners attaching the control valve at the operator's position should be removed. This valve and all the remaining hoses can simply remain attached to the bulkhead plate.
- 4) Disconnect the raise/lower arm from the curb cutter frame (two sets of fasteners).
- 5) Disconnect the curb cutter frame from front of the rider saw (six sets of fasteners).
- 6) The entire unit can now be lifted away from the rider saw.
- 7) The pump supplying power to the curb cutter must be removed and the cover plate returned or the pump can remain and the pressure line must be routed directly to tank. **WARNING:** capping and dead heading the pump is not acceptable and may damage the pump or cause burst hoses.

A conversion kit, as noted in the parts list, is required to convert to a standard rider configuration.

# TROUBLESHOOTING

## **PITCH CONTROL MOVES VERY SLOW OR NOT AT ALL IN ONE DIRECTION.**

The fittings at the rotary actuator controlling the pitch have very small orifices in them to slow the pitch response. A tiny piece of contamination can partly block one of these orifices and act similar to a check valve. Remove and clean these two fittings. A standard fitting without an orifice would work, but the pitch motion would be much faster.

## **PITCH CONTROL MOVES VERY SLOWLY IN BOTH DIRECTIONS.**

- 1) Be certain that the pitch brake is released.
- 2) The brake caliper could be dragging and need adjustment. Loosen the setscrew holding the caliper piston in position. Back out the piston a half turn and tighten the setscrew. Swap the pressure line and bleeder port so the bleeder port remains at the top position.

## **MOTION STALLS AT MECHANICAL STOPS (MAXIMUM LEFT/RIGHT OR UP/DOWN).**

Running the unit to any of the mechanical stops will not cause any harm. However, the screw drives may occasionally lock up at the stops. When a carriage moves to a stop, the torque is then applied to the screw drive/nut. This is similar to any nut/bolt that then requires more torque to loosen the joint. To loosen, a wrench can be used on the screw drives or couplings to jog the drive free.

Viewed from the hydraulic motors.

Horizontal carriage extended to curb side, turn shaft counter clockwise.

Horizontal carriage extended to street side, turn threaded shaft clockwise.

Vertical carriage at max up, turn threaded shaft counter clockwise.

Vertical carriage at max down, turn threaded shaft clockwise.

## **PITCH BRAKE HAS NO PRESSURE.**

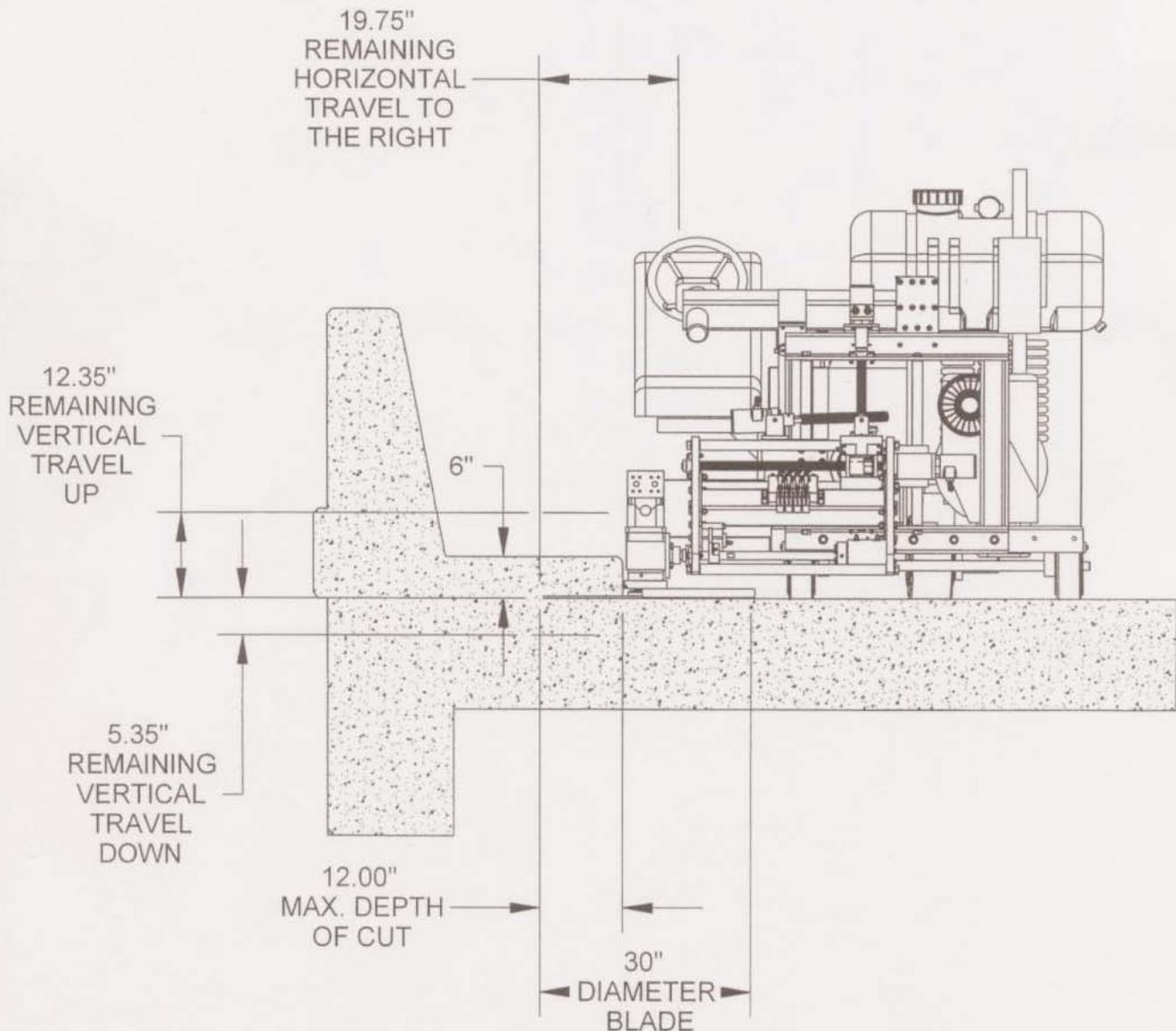
- 1) Confirm that the quick disconnects are firmly attached.
- 2) Confirm that the wires from the on/off buttons to solenoid are secure.

## **ROLL MOTION “CHATTERS” OR “BOUNCES”.**

This is most likely to occur when the carriage is extended to the curb side and the roll motion is down (or clockwise from the drivers seat). This is because the overhung weight is trying to drop faster than flow thru the lock valve will allow. This can be reduced or eliminated by:

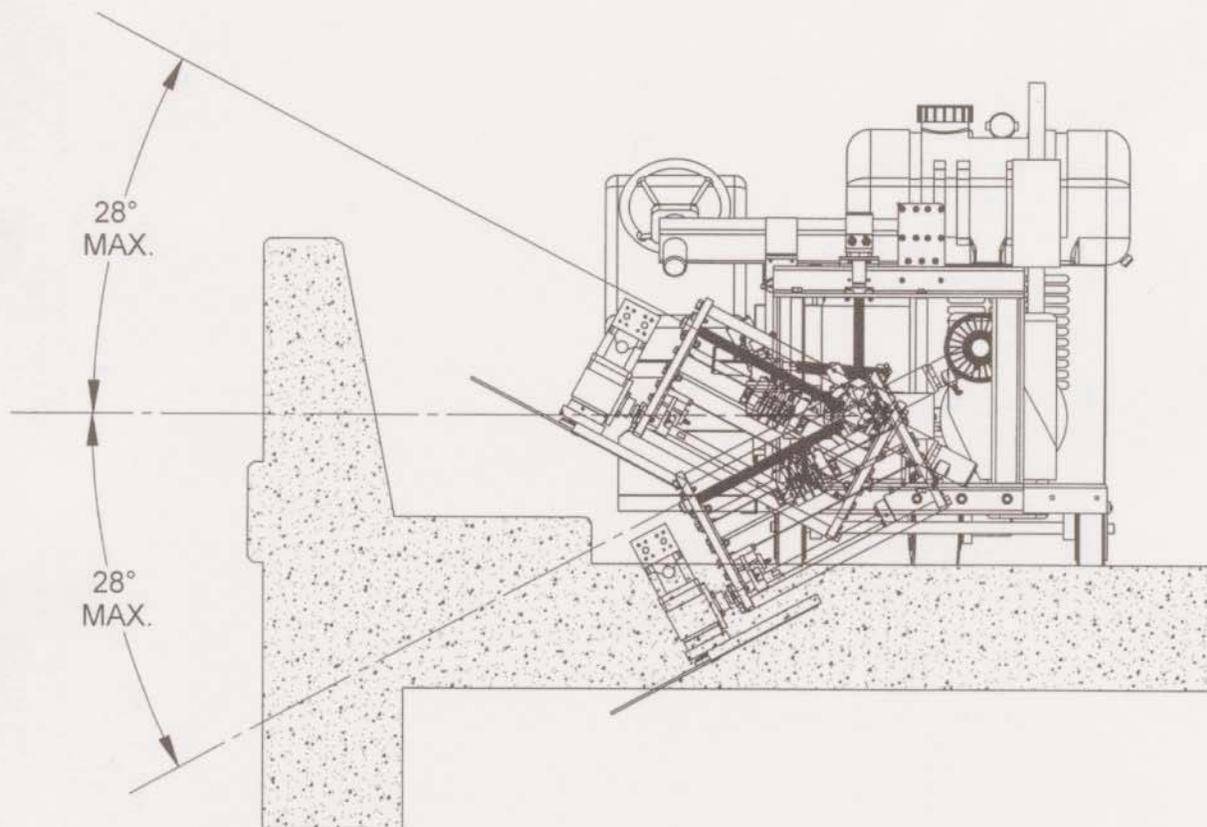
- 1) Move the carriage back toward the street side, thus reducing the overhung load.
- 2) Carefully feather the roll motion control stick to force slow steady motion.

# RIDER SAW CURB CUTTER WORKING DIMENSIONS



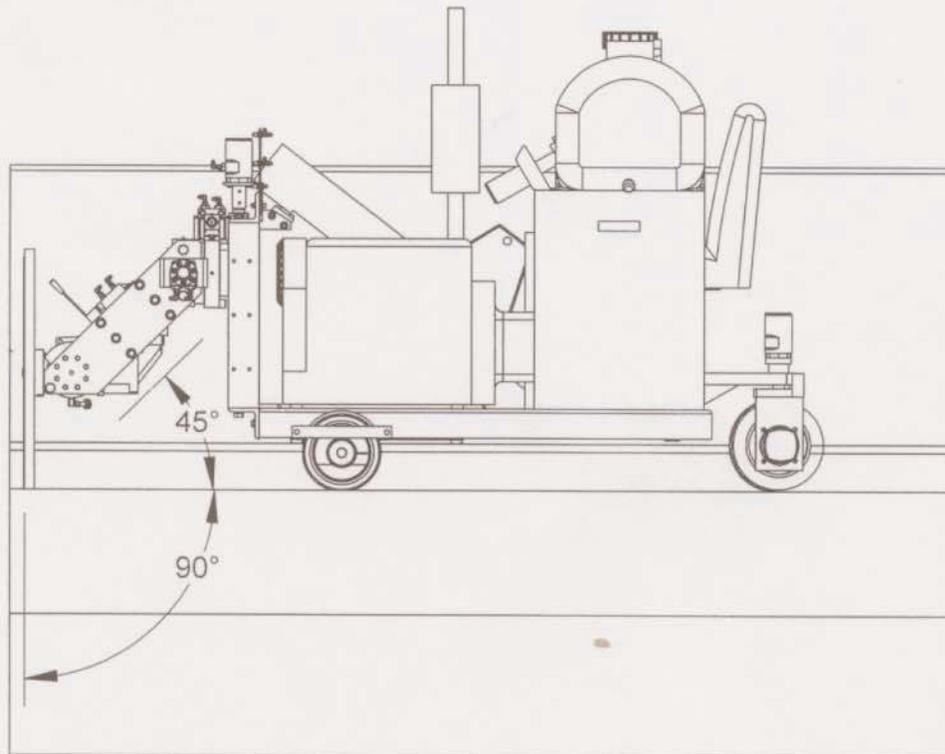
# RIDER SAW CURB CUTTER

## ROLL WORKING ANGLE RANGE



# RIDER SAW CURB CUTTER

## PITCH WORKING ANGLE RANGE



# NOTES

## **EQUIPMENT AND PARTS WARRANTY**

Diamond Products warrants all equipment manufactured by it against defects in workmanship or materials for a period of one (1) year from the date of shipment to Customer.

The responsibility of Diamond Products under this Warranty is limited to replacement or repair of defective parts at Diamond Products' Elyria, Ohio factory, or at a point designated by it, of such parts as shall appear to us upon inspection at such parts, to have been defective in material or workmanship, with expense for transportation and labor borne by Customer.

In no event shall Diamond Products be liable for consequential or incidental damages arising out of the failure of any Product to operate properly.

Integral units such as engines, electric motors, batteries, transmissions, etc., are excluded from this Warranty and are subject to the prime manufacturer's warranty.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, AND ALL SUCH OTHER WARRANTIES ARE HEREBY DISCLAIMED.**



333 Prospect Street, Elyria, Ohio 44035  
(440) 323-4616 (800) 321-5336 Fax (440) 323-8689  
[WWW.DIAMONDPRODUCTS.COM](http://WWW.DIAMONDPRODUCTS.COM)