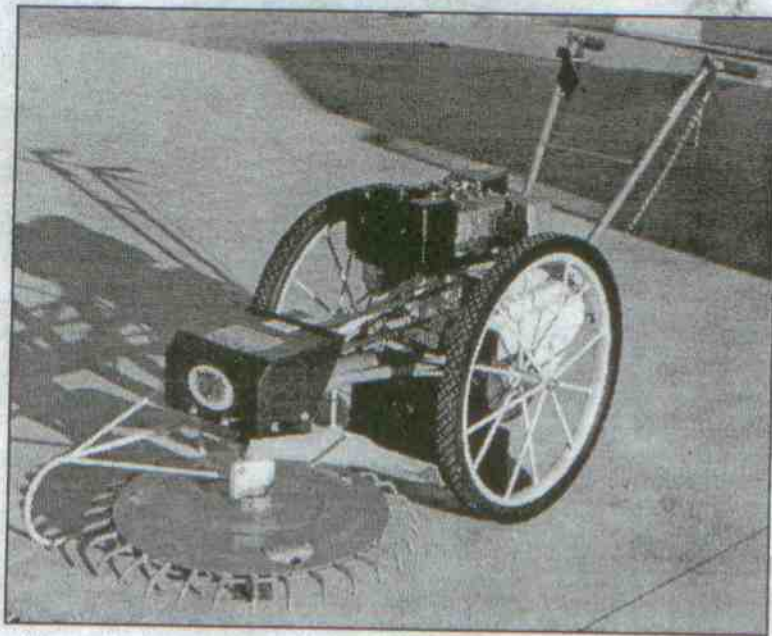


**ASSEMBLY, OPERATING & SAFETY
INSTRUCTIONS WITH PARTS LIST
FOR THE
BACHTOLD CHAMPION WEED &
BRUSH MOWER**

MODEL #8200



R-48

DO NOT OPERATE this piece of equipment until you read through these Operating Instructions and Hints, and become familiar with the basic features of this machine.

BACHTOLD BROS., INC.

509 W. First St.

P.O. Box 485

Gibson City, IL 60936-0485

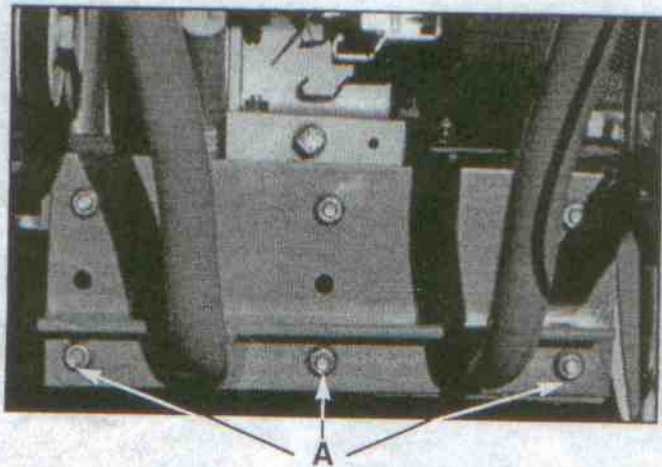
Phone 217-784-5161 • Fax 217-784-5171

For
PARTS
6/9/06.

ASSEMBLY

ATTACH HANDLEBAR

1. Attach the handlebar angle iron to the angle iron bar found on the rear engine motor mount with the three 5/16" x 1" hex head cap screws and whiz lock nuts (A). The extra mount holes are to allow for handlebar height adjustment.



GROUND CLUTCH LEVER ADJUSTMENT

2. Hook the Ground Clutch Chain and Spring to the Ground Clutch Lever on the left handlebar as shown (one end of the spring goes through the small hole in the clutch lever, the other end hooks into the first or second link chain so that the wheel drive is fully engaged when the clutch lever is squeezed against the handlebar. Belt stretch and wear can be accommodated by hooking the spring into the additional half-links of the chain.



BLADE CLUTCH BRAKE ADJUSTMENT

3. The Blade Clutch-Brake Pulley is properly adjusted when you can take your finger and pull the lever (A) completely forward in the slot (B) having the spring snug on the Control Cable. When released it will look familiar to photo (C).

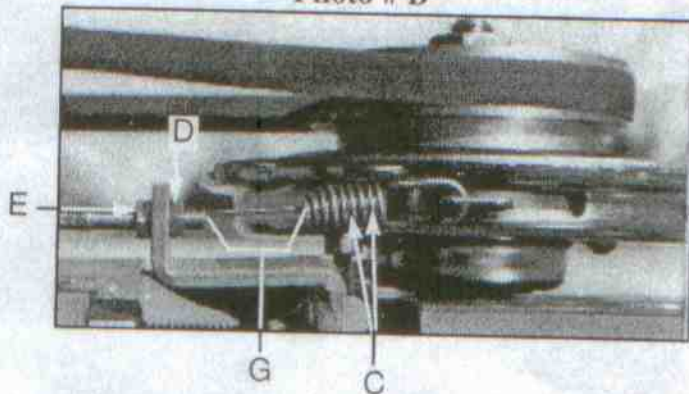
Photo # A

"Preset properly at the factory"



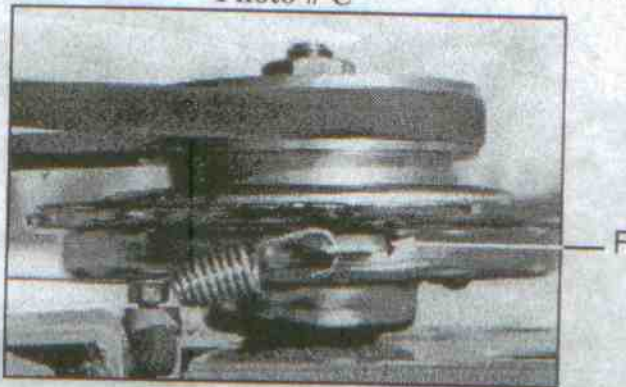
4. When the blade is engaged (see page 4) the Clutch-Brake arm should be to the rear of the slot (Photo B) with approx. 1/32" stretch between spring coils (C). This fine tuning is done by loosening and tightening the adjustment nuts (D & E) on the threaded portion of the Control Cable. 40-45 lbs. of pull on the Clutch-Brake arm is required to operate properly. Measurement between spring and cable end should be approximately 1 5/16". (G)

Photo # B



5. Notice the gap between the Clutch-Brake arm and the front of the slot (F). This allows the brake to be fully engaged when released. (Photo C) Also note, slack in cable.

Photo # C



SPARK PLUG

6. Be sure that the spark plug wire is attached to the spark plug on top of the engine.

ENGINE FUEL AND OIL

7. Fill the gas tank with gasoline. Fill the oil reservoir with approximately 2-3/4 pints of standard SAE 30 or 10W30 motor oil. Complete details are in your engine booklet.

You are ready to start the engine and try your new Bachtold Weed and Brush Mower. But first - please read over the following pages on Operation and Maintenance to ensure years of safe, productive use from your new machine.

OPERATION

This machine is designed, engineered and tested to offer safe and effective cutting provided it is operated in strict accordance with the following instructions. Please adhere to the carefully to limit the possibility of injury.

PLEASE KEEP IN MIND

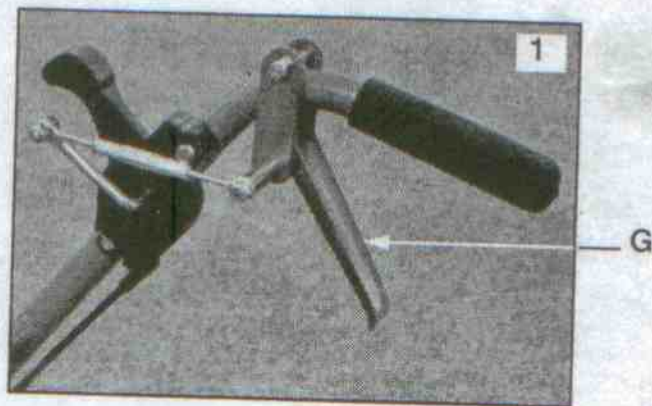
- Carelessness in starting the mower can result in serious injury. The following recommendations are made from the operator without prior experience in starting or operating a heavy-duty mower.
- Never allow children to operate the Bachtold Weed and Brush Mower.
- Be sure you know how to stop the mower in a moment's notice.
- Instruct children to keep far away from the area of mower operation at all times.
- Disconnect the spark plug at the plug terminal when making adjustments or repairs to prevent the engine from starting.
- Experiment to find the most comfortable position in relation to the weed and brush cutter to permit pulling the start cord. Pay particular attention that the feet are clear and remain clear of the blade or any moving parts. It must be assumed that the blade will cut anything within or under the mower housing.

- Pull the starter cord only a few inches and observe the reaction of the pulling force on the mower.
- Repeat the operation several times adjusting your position and grasp. Do not finally start the engine until practice has indicated that the mower will not roll or shift.

PREPARATION

- Inspect cutting areas for possible hidden debris and remove debris before operating unit in these areas.
- Unless there is very good artificial light, mow only during daylight hours.
- DO NOT operate mower in wet grass, which could clog or increase the danger of your slipping and falling -- possibly coming into contact with the mower blade. NEVER remove shields from the mower.
- Fill gasoline-driven units outdoors. Avoid spilling gasoline and don't fill the tank while the engine is running or while you are smoking.
- Be sure all blade and ground controls are dis-engaged before attempting to start engine.
- Don't mow barefoot or wearing open sandals. Provide some protection by means of long, heavy denim trousers. If you have safety shoes, wear them.

TO START AND OPERATE THE MOWER



1. The blade is dis-engaged when the bail lever "G" is in the down position as shown. Do not tie the bail lever up, it will defeat the purpose.

2. Put the Throttle Control at half throttle, and push the Choke all the way (when it's cold).

3. Step to the side and use one hand to pull the starter rope.

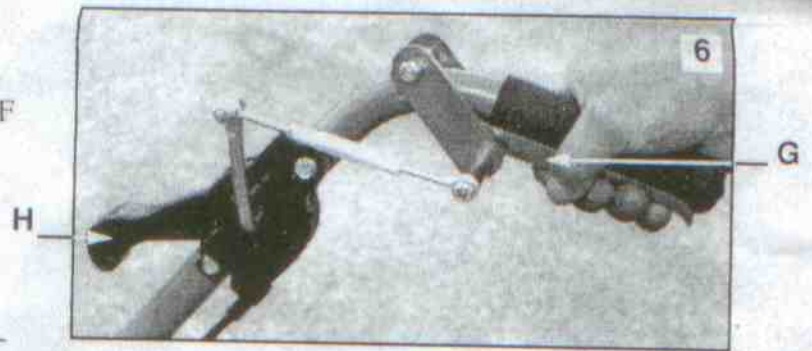
4. Once the engine is started, pull the Choke OFF gradually until the engine is running smoothly. Allow engine to run until you can put Choke in the full OFF position.

To move the machine closer to the area you are cutting, before engaging blade, simply squeeze the Wheel Clutch Control on the left-side handlebar and move off at a comfortable pace. You can adjust ground speed both by slowing down or speeding up the engine with the Throttle, or by varying the amount of hand pressure on the handlebar Wheel Clutch.

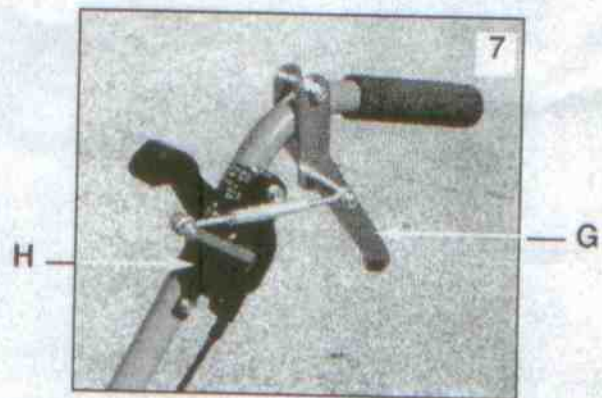
5. To start to mow, place unit in an area clear of debris and other growth so the blade won't be obstructed when you start it turning. It is not recommended to mow in area's covered with rocks, hidden stumps, etc.

6. To engage the blade -- you must slowly (blade is engaging) push the lever "H" forward, and while your holding it forward with your left hand; take your right hand and pull up the lever "G" under the handlebar. Now you can release your left hand from the lever "H" and it will stay in place. When you release the lever "G" in your right hand the blade-brake will come on and disengage the blade. (See photo at upper right).

7. To disengage the blade -- slow the throttle to idle to allow the engine to break the momentum of the blade (much like a car slowing in lower gear when descending a hill), and when you release the bail lever "G" the brake will engage, stopping the blade. (See photo at right).



**Bail Lever Engaged
(Blade Engaged)**



**Bail Lever Disengaged
(Blade Disengaged)**

OPERATING HINTS

- Safety glasses should be worn while mowing to protect the eyes at all times. Wear hearing protection.
- Give complete and undivided attention to the job at hand.
- Keep the area of operation clear of ALL persons, particularly small children.
- Don't start the engine and blade until you are ready to start cutting. Stop the engine whenever you leave the unit.
- Don't overspeed the engine. Excessive cutting speed or tampering with the governor can be dangerous. Operate the engine at the slowest speed that will cut satisfactory.
- Start the unit carefully. Stand firmly, with your feet away from the blade. Be sure the unit will not tip or roll during the starting operation.
- When operating over uneven terrain and slopes, use extreme care and make sure of solid and firm footing at all times.
- Exercise special care when cutting around objects to prevent the blades from striking them and **NEVER** deliberately cut over any object.
- Stop the operation when another person approaches.
- Do not pass or stand on the grass-discharge side or the front end of the unit with the engine running.
- **NEVER** place hands or feet under or into rotating parts or concealed areas. Keep hands and feet clearly away from the cutter elements, belts, pulleys, gears, etc. while engine is running and until you are sure the blade has stopped after the engine is shut off.
- While using a weedcutter, cultivate the habit of not hurrying or taking things for granted. When in doubt about the equipment or surroundings, stop the machine and take time to look things over. Make sure that at all times you have 100% control over the mower.
- **DO NOT**, under any conditions, remove, cut, bend, weld or change standard parts on any equipment. This includes all shields and guards. A change made on your own may make the machine unsafe. Built-in safety

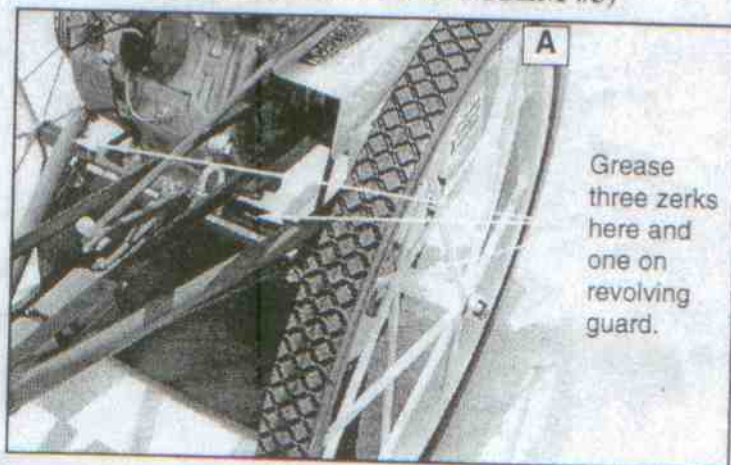
features are effective only when maintained and kept in place.

THINK SAFETY

MAINTENANCE

1. Have a competent serviceman make a thorough inspection at least once a year.
 2. Never adjust the unit until the engine has been turned off.
 3. Keep the engine free of accumulations of grass, leaves or excessive grease. An accumulation of these combustible materials may result in fire.
 4. Maximum cutting results and safety can only be expected if the unit is maintained and operated correctly.
 5. There are three (3) grease zerks on the mower that should be lubricated periodically. One zerk is located on the ratchet wheel and two others are located on the axle housing. See sketch ("A").
 6. The mower has a variable-speed drive and can be operated from a slow creep to a fast walk. Different ground speeds are attained by merely squeezing the clutch lever with stronger or lighter pressure until the desired speed is reached. The 31" belt may be safely slipped in the pulleys if a very slow speed is desired for heavy weed cutting. If the belt stretches, hook the spring in the clutch lever one link closer on the chain toward the idler.
- NOTE:** 7. After using the mower, leave it set for one hour so the pulleys and belt cool from heat generated during use; then pull the recoil starter rope just enough to rotate the blade drive belt 1/4 turn to reduce the chance of "belt set".

(SEE MAINTENANCE ITEM #5)

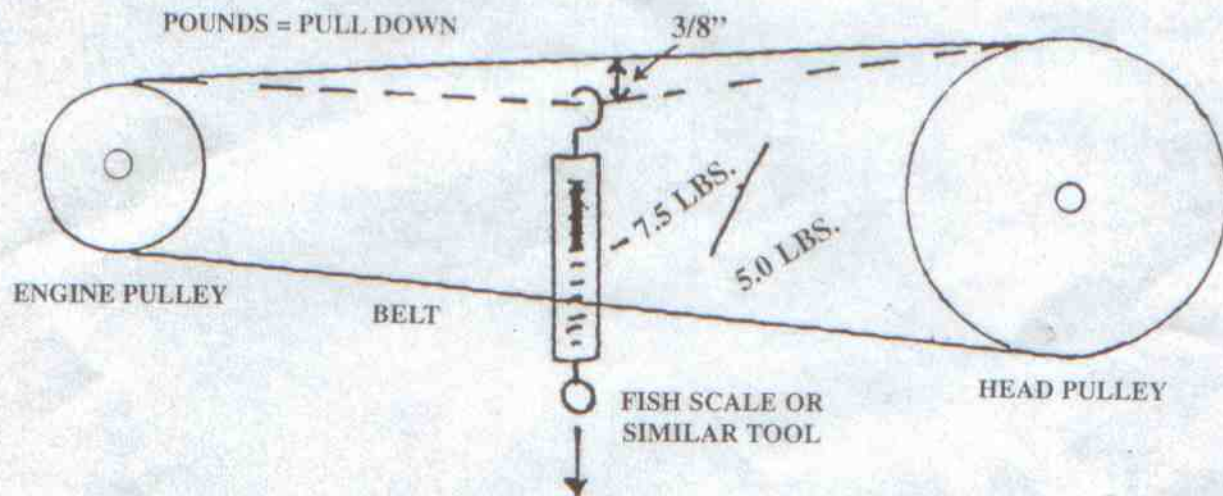


TROUBLE-SHOOTING GUIDE

<p>1. Wants to pull sideways when ground control is engaged.</p>	<ul style="list-style-type: none"> • Check both sides of the big sprocket on axle to see if the springs that hold the ratchet dogs into the ratchet notches are in place.
<p>2. Both wheels want to pull together constantly. No differential effect.</p>	<ul style="list-style-type: none"> • Axle nut is too tight on left side of machine. Loosen one castellation.
<p>3. Mower wants to creep over ground.</p>	<ul style="list-style-type: none"> • Ground drive belt is too tight. Loosen by hooking spring in chain one link longer. • Idler is not free enough to drop down. Loosen bolt at pivot on idler bracket. • Ground drive belt should be above the upside down "L" bracket welded on the frame under the engine pulley.
<p>4. Blade turns to the right instead of left.</p>	<ul style="list-style-type: none"> • Blade drive belt is twisted the wrong way.
<p>5. Blade comes loose.</p>	<ul style="list-style-type: none"> • Blade drive belt is twisted the wrong way.
<p>6. Drive chain runs off of big sprocket.</p>	<ul style="list-style-type: none"> • Big sprocket is too loose. Tighten with castellated nut on the axle. • Small sprocket on drive box is slipping in and out on the shaft. Line up and tighten with Allen wrench. • Chain is too loose. Loosen bolts in front and rear of drive box and tighten by pushing box to the rear of the machine and retighten bolts. • Take up slack in axle by loosening set screw in right wheel. Be sure mower frame is tight against the big sprocket to the left, then drive the right wheel on tight against the axle housing and tighten the set screw. Countersink the set screw in the axle to prevent further problems.
<p>7. Belt frays or rolls over in pulley.</p>	<ul style="list-style-type: none"> • Pulley groove is nicked or belt was broken in too tightly and broke the cords. Belt must be replaced.
<p>8. Belt set.</p>	<ul style="list-style-type: none"> • After using the mower, leave it set for one hour so the pulleys and belt cool from heat generated during use; then pull the recoil starter rope just enough to rotate the blade drive belt 1/4 turn to reduce the chance of "belt set".

Here are the **MOST COMMON ADJUSTMENTS** you will need to make on your **BACHTOLD WEED and BRUSH MOWER**

To determine proper tension on the Blade Drive belt:



The above drawing shows how to adjust the proper tension on the blade drive belt. This is adjusted properly at the factory before shipping. It only needs re-adjusting due to belt wear and stretch, or when a new belt is put on the machine.

A 7 1/2 lbs. pull force is needed to determine proper tension on a new belt and should have $3/8''$ deflection. Five (5) lbs. of pull force is needed on a used or broken in belt and should also show $3/8''$ deflection. This lightens the static head bearing load from 220 lbs. on initial installation to 190 lbs. to extend head bearing life.

1. To adjust the blade drive belt tension:

Loosen the lock nut "L" and loosen or tighten the hex head adjustment screw "K" in the block of the main frame. This does not effect your blade clutch-brake adjustment since it is all attached to the head itself. However, you may have to loosen the clips that hold the cable to the frame and reattach them should movement over $1/8''$ be required.

2. Head Leveling Adjustment:

This is necessary primarily on the 70970NC weed and brush head since there is no support on the left side to allow for discharged material. Place the weed blade perpendicular to the main frame, and on a flat surface, measure from the cutting edge to the floor on each side. Loosen nut "J" and adjust the screw in or out "I" till the blade is level.



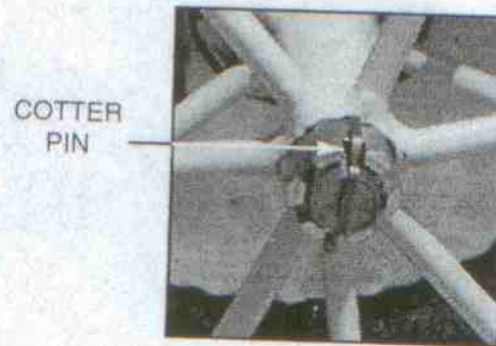
2. To adjust the Chain Drive:

- Loosen the two (2) chain case bolts slightly.
- Tap with a hammer at the base of the chain base, toward the rear of the machine.
- Once pushed back, retighten one bolt, then another. That should remove any looseness in the chain.



3. To tighten the main sprocket on left wheel:

- Unbend ears of the wheel nut cotter pin.
- Remove cotter pin.
- Tighten the castellated nut clockwise one or two notches, so notches line up with cotter pin hole.
- Wheel should still move freely, but play should be eliminated.
- To remove end play from the entire axle or right wheel, loosen wheel, loosen set screw right wheel hub and slide or tap wheel toward main frame. Then retighten set screw.



4. Blade clutch-brake adjustment:

To adjust the Blade-Clutch Brake, check the proper settings and procedure on page 2. The manufacturer does state that the linkage should be installed and always maintained to allow for a pull force on the actuator arm (part of the clutch brake) to have a load of between 40-45 lbs. through the full 27° of travel of the arm. The brake springs which are internal to the Clutch-Brake itself create the return of the actuator arm. After several hours of use, check the spring load tension (page 2, figure B) to see if any adjustment is needed due to break wear, then check periodically.

5. To adjust the Wheel Drive Belt:

- Unhook chain from the spring at handle end and hook into next half or full link.
- In the event that the main drive sprocket turns when clutch is engaged but wheels do not, check to see that both small springs on the sides of the main sprocket are attached to the ratchet arm and to the sprocket.

