



Brushcutter

Notes



**A Primer on the
Safe & Effective
Use of the Tool**

Contact the South District Manager or the appropriate Tool Cache Steward for maintenance to the engine or cutting head requiring Stihl-certified service, cutting head supplies (thermo-plastic knives for the Polycut, sharpening of the Brush Knife, lube oil for the cutting head, etc.), repair or replacement of the personal protective equipment (such as the helmet).

Before Starting...

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ost of us have used a weeder or a brushcutter before. However, we all need to stop and think about the tools and how we use them on and for our trail sections, and this is as good a time to do it as any. Gasoline-powered brushcutters are a blessing for us. They let us really cut away the undergrowth and grass as we maintain our trail sections, and do it quickly and efficiently. My intent here is to remind us all of some basic safety factors as well as to describe some things to do when using one of our PATC brushcutters.

Safety First, Last—Always

Safety is always **Job Nr. 1** for us. Some of my thoughts about this are:

- You should always wear a long-sleeved shirt, long pants, boots, and gloves as well as the protective helmet provided in the tools cache when cutting.

Note: Always remember those who are hiking your trail section!

- Hikers will not recognize your existence.

They will try and pass you by as if you're a stationary obstacle—like a boulder in the trail or a blown-down tree—without regard to the power tool in your hands, the noise it emits, and the ear muffs covering your auditory sensory devices (ears).

- You will probably encounter wasps, bees, hornets, and yellow jackets at some time while you're using the brushcutter.

The first indication you'll have is that extremely unpleasant sensation when the stinger hits the skin. There's really only one thing to do: turn off the machine and run! If you're allergic to bee stings, you should always have first aid material in your kit, whether over-the-counter stuff or prescription medication (epinephrine) provided by your doctor. If you carry tobacco, as I do, take some, wet it, and place it over the stings, secured by a band-aid. It works for me.

- Although it's not required, it is a very good idea to always have a helper or companion with you when you're using the brushcutter.

Your companion may, for instance, spot that timber rattler long before you'll hear it (especially when you're running the tool). He or she may also be able to tackle the hikers before they try to blow right by you.

Note: Always remember those who are hiking the trail section!

Warning Carry plenty of water as well as some snacks.

- Take as many breaks as you need

In fact, take more than you think you need. The helmet alone will cause you to lose water, profusely, through your sweat. And, the vibration from the brushcutter and the constant swinging motion you make as you cut will tire you out. A tired operator is an accident waiting to happen.

Note: Always remember those who are hiking your trail section!

Before You Begin...

Please review the Operator's Manual for the machine you use—each machine is different, and each is similar. I've described some of the tasks common to the FS85 and FS106 machines here.

Lubricate the Gear Head

Be sure to lube the gear head each time you use the machine, before starting the brushcutter. Take the *scrench*—the long combination screw driver-wrench—and remove the small nut on the gear head. Then, squeeze lubricant from the tube into the canal until no more will go inside. Then, screw in the small nut and tighten using the *scrench*.



Fuel the Machine

Fill the gas tank with high-test (92 octane) gasoline mixed with Stihl engine oil at a 50:1 ratio. You should find bottles of engine oil in the cache with the brushcutter and a gas container. Please re-fill the gas container with the 50:1 gas-engine oil mix after you finish using the machine.

Note: **Maintainers: Keep your receipt—send it to our Trails Coordinator for reimbursement.**

Starting

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he Stihl brushcutter may be a bit cranky when you try to start it. This may result from the fact that, through experience, they know what is about to befall them, but ... be firm and patient, and you'll be rewarded.

Set Control Switch

The **Start** switch is on the right-hand handlebar. Hold the trigger in (push), move the switch to **Start**, and release the trigger. If the switch remains at **Start**, you're okay to go ahead. Otherwise, repeat—remember to continue to press the trigger while moving the switch!



Priming

Next, you must prime the carburetor. Push the clear plastic bubble on top above the air filter element. You may have to push it several times until you see liquid (that's gasoline) inside the reservoir.



Choking

Normally, choking is something we avoid, if possible. Many aren't used to thinking about the choke on a carburetor since, well, most of our autos today don't have carburetors. Even if yours does, you probably don't have to work a choke. The 2-stroke engines on the Stihl FS 85 and FS 106, however, have chokes. When you start them



for the first time, move the choke lever on the carburetor from **Off** to **Full Open** (from bottom to top).

It Takes a Jerk...

(as we used to say in an infamous Boy Scout campfire skit). In any case, grasp the bar of the brushcutter with one hand to hold it steady, take the handle for the lanyard in your other hand, and pull up and out sharply—*try to not release the lanyard handle as the cord rewinds*. If you do, it may strike you, and it won't feel good when it does.



Choke Down

After you start the engine, you can either move the choke lever to **Half Choke** or **Off**.

Note: You may need to run the machine with the choke set to Half Open.)



Running the Machine

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he 2-stroke engine is efficient but persnickety. It likes to be run at full throttle at all times. In fact, running it full-blast helps keep the carburetor and spark plug clean.

1. Always run the engine at full-speed!
2. Carry plenty of Stihl-mix fuel (50:1) with you.
3. Keep in mind where you are—specifically—loose stone and boulder may trip you up.
4. Keep in mind that there are critters where you are—the deadfall limb you reach down to remove from your path may still have life in it.
5. Take a break every time you need to refuel the brushcutter—let the engine, and you, cool down a bit.



Changing Cutting Heads



he brushcutters have three cutting heads: a string trimmer, a PolyCut 40, and a three-blade carbon-steel brush knife. The string trimmer is the head most of us are accustomed to use, since that's what works best with our lawns at home.

It works fine on the trail against grasses, but it may get jammed up by heavier weeds—the thicker stalks on weeds (such as stinging nettle) tend to shred and become embedded between the spindle and the trimmer head. This will stop and jam the head very quickly. In most cases, the PolyCut 40 head, with three plastic blades and a section of cutting string, works best on the trail. If, however, you have woody stuff to cut, such as mountain laurel, you may want to switch to the brushknife.

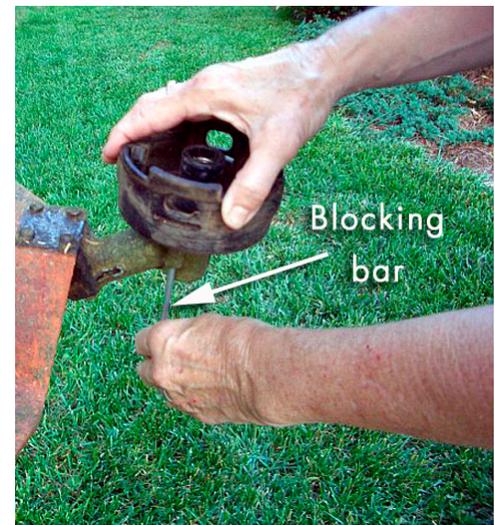
Note: The brushknife works best on stinging nettle, I've found.

Warning The brushknife will kick up shards of rock (a.k.a. "shrapnel") when you accidentally strike stone. Be sure to wear a long-sleeved shirt and long pants as well as the protective helmet (with the visor turned down) at all times!

Remove the cutting head

- Use the small locking bar to lock the cutting head in place. Slide the bar into the channel on the side of the gear head and turn the cutting head until the bar slips into place and the cutting head will not turn.
- Grasp the head with both hands and turn following the direction arrow on the head.

Note: Release the head by turning it in the clockwise direction.



Replace the cutting head

- Set the new cutting head over the spindle.
- Place the metal washer over the head.
- Set the metal cup over the washer.
- Set the locking nut on the spindle; hand-tighten.
- Using the srench, tighten the locking nut.

Note: Turn the srench counter-clockwise.)



Clean Up

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lease clean the tool before returning it to the tool cache. Follow these simple steps to help us keep the brushcutters in good shape and available for other trail overseers.

- **Re-pack** the cutting head with grease after each use!

Warning **It is incredibly important to re-pack the cutting head after each use. This helps assure the continued availability of the Stihl brushcutters.**

- **Clean** the “barrel” and orange plastic guard—If you have an old, ragged Dolby pad that can't be used to wash dishes anymore, you can use it—with water—to clean these.
- **Check** the air filter and knock off any debris that has collected there, too.

Re-Stock



asoline does not replenish itself. Neither do plastic cutting knives. Be kind to the next trail overseer who needs to use the Stihl brushcutter.

1. If you do not bring gasoline with you, take the container in the tool cache room and go to the nearest gasoline station to refill it. Remember:
 - a.. **Always** use 93-octane **non-ethanol** fuel.
 - b.. **Remember** how much fuel you added to the PATC gas container.
 - c.. **Add just enough** Stihl engine oil to the PATC gas container to match the amount of fuel you purchased (1 gallon --> 1 bottle of engine oil, usually).

Note: If you add 0.75 gallon, pour in a full bottle of engine oil. If you add 0.5 gallon, only put in half a bottle of engine oil. It's okay to add just a little more engine oil than required.

Stuff happens.
Life goes on.

If the lanyard—pull string—breaks or comes out, call! Let us know.

We cannot fix that which we don't know is broken

Warning It is never okay to add less than what is minimally required to obtain, or keep, a 50:1 mix of engine oil - volume of gasoline.

2. **If the stock** of plastic knives for the Polycut40 cutting head is low, contact the steward for the tool cache.
3. **If any part** of the brushcutter needs to be serviced—the brush knife needs to be sharpened, for example—contact the tool cache steward.
4. **If the brushcutter** needs to be serviced, contact the tool cache steward.
5. **If the brushcutter is missing**—*and is not checked out*—contact the district manager and the tool cache steward.