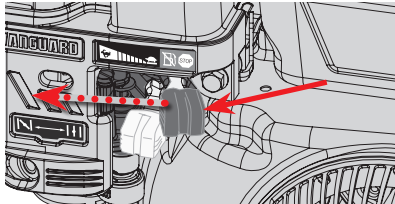




Troubleshooting 6.5 HP Cyclonic Vanguard Engine

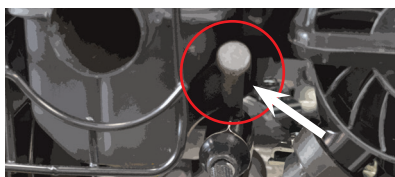
If you are experiencing issues with starting your engine please refer to the steps below for some of the most common problems and solutions. For our fastest service during our peak seasons, please send a note to support@woodlandpowerproducts.com and we will be in touch within 1 business day or, you can contact us at our main line 888-531-7253 and at the prompt, please press 2 for technical support.

My Engine Won't Start.



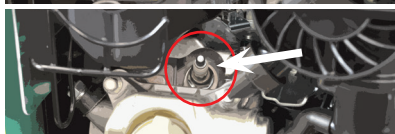
1. Check all the levers are in the correct position.

- First make sure all the levers are in the correct spot.
- Move the Dark Gray throttle lever all the way to the left for "Rabbit.", and move the Light Gray choke lever to the left for "Full Choke."
- If all of that is correct, we must next determine if it is an ignition or fuel delivery problem.



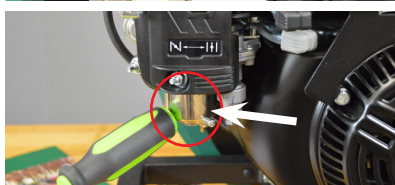
2. Determining whether it is an ignition or fuel delivery issue.

- Remove the spark plug, and pour a couple teaspoons of gas directly into the cylinder, and then replace the plug and cable on top.
- With all the levers in the correct position, attempt to start the engine.
- If the engine fires but does not stay running, then the ignition is fine and it is a fuel delivery problem.
- Most likely the float valve is lodged or the carburetor is dirty.



3. The float valve may be lodged.

- Locate the carburetor and give it a solid tap the bottom with the handle of a screwdriver. Or take a couple laps around your property with the engine off.
- Then try to restart the engine.



4. The carburetor may be dirty.

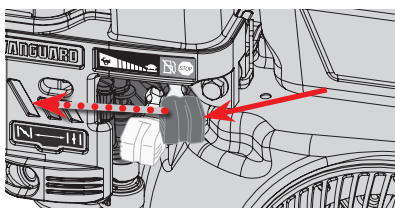
- If it still does not start, remove the air filter, then spray some carburetor cleaner (we recommend using the brand Sea Foam) into the base of the air filter housing so it goes into the carburetor. Then let it sit for a few hours, but preferably overnight.
- Again, try to start the engine.
- If this does not work, you must take it to a Briggs & Stratton dealer for warranty work.



5. Checking for an ignition issue.

- If there is an ignition problem, double check that the fuel lever is in the correct position.
- When you begin to move the fuel lever, there should be a clicking sound.
- Make sure the spark plug wire is properly attached to the top of the plug.
- If it still does not start, you will need to take it to a Briggs & Stratton dealer for warranty work.

Are Your Fuel Levers in the Correct Position?



1. Fuel levers correct positioning

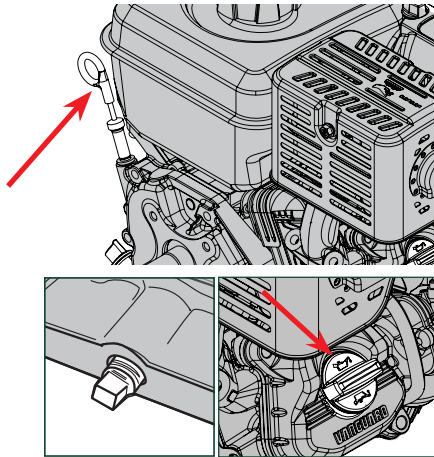
- Move the Dark Gray throttle lever all the way to the left for "Rabbit".
- Move the Light Gray choke lever to the left for "Full Choke".

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72 Acton Street, West Haven, Connecticut 06516

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Your Engine May Be Out of Oil

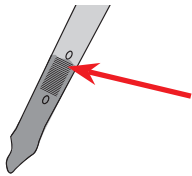


RECOMMENDED OIL CHART

The oil should be marked A.P.I. service "SF," "SG," "SH," "SJ" or higher.

Air Temperature	Type of Oil
Above 32° F	SAE 30 or SAE 10W30 oil
Below 32° F	SAE 5W30 oil

If synthetic oil is preferred 5W-30 is good in all temps.
SAE 10W40 is specifically not recommended.



1. Prepare.

- With the engine off but still warm, disconnect the spark plug wire and keep it away from the spark plug.
- Now locate the yellow dipstick on the other side of the engine. Remove the yellow dipstick, wipe it with a clean cloth, and set it aside.
- There are two drain plugs on either side of the engines base, you can use either one.
- Place a shallow pan under the engine.

2. Drain the engine of excess oil.

- Now remove one of the drain plugs by using a 10mm wrench or socket.
- Drain until the oil flow stops.
- After the oil has drained, reinstall and tighten the oil drain plug.
- Wipe up any spilled oil and remove the pan.

3. Check you are using the correct oil.

- Using the chart to your left, determine which recommended oil you should be using for your engine.

3. Adding new oil.

- Locate and remove the large yellow plastic butterfly cap on the side of the engine and place a rag under the opening to catch any spilled oil.
 - Using a funnel, slowly pour the oil into the opening, do not overfill.
 - After adding some oil, wait one minute, then reinstall the dipstick to check the oil level.
 - The correct oil level will meet the top of the full indicator dot on the dipstick.
 - When its full, replace the large butterfly cap and tighten firmly by hand.
- Clean up any spilled oil and reconnect the spark plug.

IMPORTANT: Do not use a wrench or pliers to tighten, you can break the butterfly cap.

My Engine Only Runs on Choke or Starts and then Stops

1. Engine will not catch, or will start and then stop.

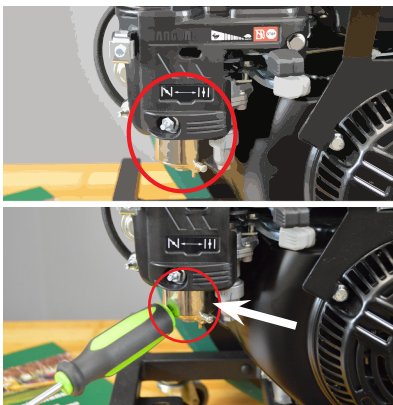
- If this is the case, your float valve may be lodged, or your carburetor needs cleaning.

2. Dislodging the float valve.

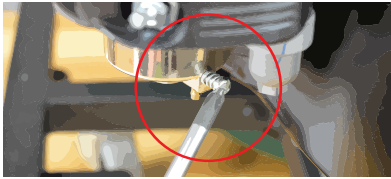
- Start by locating the carburetor near the metallic bowl underneath the air filter and give it a solid tap with the handle of a screwdriver.
- Or you can even try to take a couple laps around your property with the engine off.
- If the float valve was lodged this will dislodge it.

3. Cleaning the carburetor.

- Reference the instructions on how to clean your carburetor below.

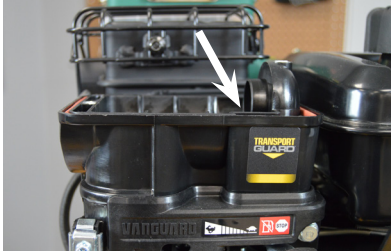


Your Carburetor May Need Cleaning



1. Preparing the carburetor.

- First, drain the carburetor of gas by locating the fuel drain underneath the air filter.
- You will see a Philips head screw sticking out from the side of the carburetor.
- Loosen the screw and gas will start pouring out of the carb.
- Once carburetor is empty, re-tighten the screw.



2. Cleaning the carburetor.

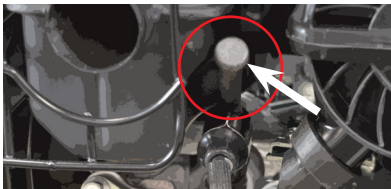
- Remove the air filter exposing base, so you have clear access to the carburetor.
- Spray about a shot glass worth of carburetor cleaner, (we recommend using the brand Sea Foam) directly into the base of the air filter so it goes into the carburetor.
- The longer the Sea Foam stays there, the more it will clean it. It will start eating away at the gunk in the carburetor.
- Let it sit overnight.



3. Checking the engine.

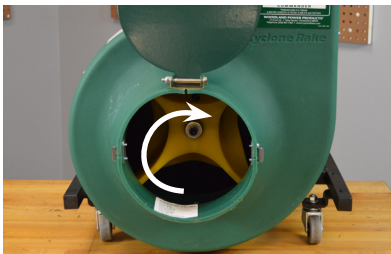
- The next day, with the air filter still off, start the engine and let it burn out the Sea Foam in the carburetor.
- As it runs it will continue to clean itself.
- Once it burns up the Sea Foam in the carburetor, the engine may sputter and die.
- Spray carburetor cleaner directly into base of air filter to resuscitate it.
- Repeat the last step until the engine runs on it's own.

Is Your Recoil Rope Stuck or Hard to Pull?



1. Did the engine stop while in use?

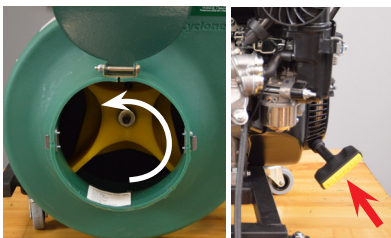
- Sometimes, while you are mowing, the Cyclone Rake may run out of gas. Due to the noise you may not notice this, meanwhile your mower is throwing debris into the blower housing.
- Remove the exit chute and open the safety cover.
- Clear out any debris and try restarting the engine.



2. Check to see if there is any oil.

- If there is no oil, check the drain plugs and fill plugs for any leaks.
- Now fill the engine with oil, and remove the spark plug wire.
- Now try to turn the impeller clockwise by hand to circulate the new oil.
- If the impeller now turns by hand, reconnect spark plug wire and try to start your engine again.

IMPORTANT: Always make sure to remove the spark plug wire before reaching into blower housing to avoid injury.



3. The recoil rope may have gotten tangled last time it retracted.

- Remove the spark plug wire and see if you can turn the impeller by hand.
- While turning the impeller counter-clockwise, slowly pull the rope at the same time and this should untangle it.
- If none of these scenarios work, it will need to be taken to a local Briggs & Stratton dealer for warranty work.

Thanks for being a Cyclone Rake customer and we hope this troubleshooting guide has helped resolve your issue!