



SIDEWINDER CARBURETOR

When difficult starting, most of the time it will be carburetor related. If you do get the unit started, and even after trying to adjust the Hi and Low rpm needle valve and you still can't keep it running properly, it's most likely the carburetor.

The main cause of this problem is stale fuel which is caused by improper long term storage. If a fuel stabilizer is used when the unit is stored, this problem could be avoided. Fuel stabilizer should be added to your fuel mixture every time a new mix is made.

What happens is that the diaphragm inside the carburetor becomes hardened by the fuel sitting in the carburetor while it is being stored. This makes the diaphragm not pliable anymore. The diaphragm acts like a float in a bowl type carburetor. When the engine is being started there is vacuum created which pulls on the diaphragm and pushes on the metering lever, this allows the metering valve to open. Once the diaphragm has been hardened it cannot move to the full open position and let enough fuel through the metering valve. The engine is now starved of fuel which causes the hard starting, erratic idle and erratic high rpm.

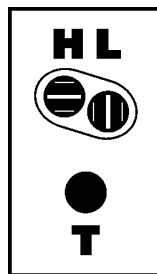
Two options for this repair: (a) Install a carburetor kit and thoroughly clean the carburetor body with cleaning solvent. (b) Order a new carburetor.

After installing a carburetor kit and reassembling the unit you will have to adjust the carburetor. There are three adjusting screws:

Screw **(H)** must be adjusted so that there is a slight hunting with the engine at max speed.

Screw **(L)** must be adjusted so that the engine promptly responds to sharp accelerations and gives a good idle operation.

Idle screw **(T)** is adjusted in order to ensure a good safety margin between idle running and clutch engagement.





Carburetors come set from the factory for optimal performance and compliance to EPA emission standards. However, minor adjustments may be required in certain conditions, such as elevation.

NOTE: Attempting to set the carburetor mixture to increase the speed or power beyond the limits may damage the engine.

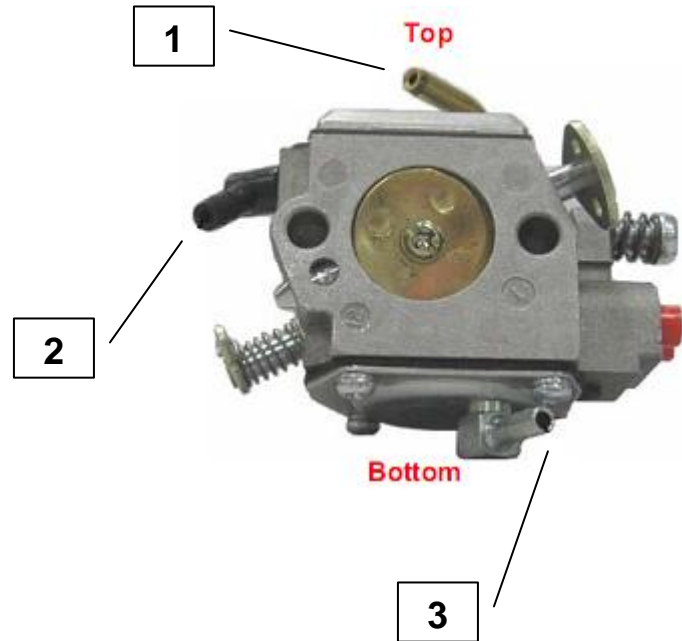
1. After installing carburetor kit and reassembling unit use a 5/16" straight blade screw driver and gently turn both adjusting screws in clockwise until completely closed, then back out to:
 - a. **(H) screw out 1 ¾**
 - b. **(L) screw out 1 ¼**
2. Start the engine and let it warm up, with a tachometer check the rpm, with no blade.
 - a. **Idle speed = 2,500 ± 300 rpm**
 - b. If the idle rpm does not fall into the range, adjust the **(T)** screw, clockwise to raise the rpm, counterclockwise to lower the rpm.
 - c. **Full throttle target = 10,000 ± 500 rpm**
 - d. If the full throttle rpm falls below this range, turn the **(H)** screw in clockwise 1/16th of a turn at a time. Pulse the throttle to help stabilize the system.

(DO NOT hold at max rpm for more than 5 seconds, cylinder damage may occur)
3. If engine stops while idling with blade.
 - a. Turn **(T)** screw in clockwise until blade begins to move.
 - b. Then back **(T)** screw out ½ turn.

Commonly forgotten when carburetor replacement or rebuilding is fuel hose routing.
(See routing on next page)

Model: **HS62A** *SideWinder Cut-Off Saw*
Carburetor: Walbro *HDA-225 Series*
MQ part # **HS52020271**

1. To vacuum crankcase cylinder.
2. To fuel line intake.
3. To breather air filter.



Model: **HS81A** *SideWinder Cut-Off Saw*
Carburetor: Walbro *WJ-104-225 Series*
MQ part # **HS52012116**

1. To breather air filter.
2. To fuel line intake.
3. To vacuum crankcase cylinder.

