



SETTING PRESSURE REGULATOR

Pressure regulators must be checked and set on any new installation as well as checked during normal equipment maintenance.

There are only two adjustments on a carbureted Propane fuel system and they are both on the Pressure regulator. Pressure is set with a large flat slotted screw located on one side of the regulator. It sets in a round protrusion 1 inch in diameter and comes out $\frac{3}{4}$ of an inch from the side of the regulator.

The other adjustment is to set fuel flow, also commonly called the low idle screw. Looking at the regulator from the pressure setting screw, the low idle adjustment is located on the rounded right side. It looks like a square tower protruding to the right. Next to it is a black $\frac{1}{8}$ inch plug where the pressure gauge will go. In the square tower is a small flat blade screw type for adjusting the fuel flow.

FOLLOW DIRECTIONS BELOW

- Once fuel system is installed, make sure Propane tank is shut off by closing valve on tank.
- Remove black $\frac{1}{8}$ inch plug and install pressure gauge. Gauge should read 0-10 PSI or 0 -15 PSI .Gauges and shradar valves are available for this or a gauge with a 2 or 3 inch close nipple $\frac{1}{8}$ " male thread will work.
- **Before attempting to start the engine MAKE SURE the idle screw on the Carburetor is backed out so it does not touch the throttle shaft. 99% of the time this screw will never be used. Always start the engine with the throttle fully closed. DO NOT ADVANCE THROTTLE AT ALL.**
- Once gauge is installed open Propane tank and attempt to start engine and watch the pressure gauge. If engine starts, watching the pressure gauge bring the pressure up to 3 pounds.
- Turning the large pressure screw clock wise, or to the right should raise the pressure on the gauge. Turning the large screw counter clock wise or to the left should lower the pressure.
- Pressure for engines up to about 25HP should operate fine on 3 to 3.5 pounds. 35HP to 37 HP may operate better at 4 pounds. **You should not need to go above 4 pounds.** The pressure at the regulator is designed to make sure you have enough fuel to support the engine under a load.

- Once pressure is set we will adjust the fuel flow. Using a tachometer adjust the fuel flow, small screw in square tower to reach the best RPM you can achieve while the engine is at an idle. Turning the small screw clockwise or to the right will make the fuel richer. Turning the screw counter clockwise or to the left will make the fuel leaner. You are looking for the sweet spot which will be the max RPM at engine idle. **REMEMBER YOU ARE NOT SETTING LOW RPM ON THE ENGINE AT THIS POINT. YOU ARE SETTING THE PROPANE FUEL SYSTEM. Most of the time engine RPM's will not change going from gasoline to Propane. However if it does you can then use the idle screw on the carburetor to raise the low RPM or the set screws on the engine controls to lower it. On small engines like 17 HP you will have to use the throttle plates that is tied to the governor.**
- Once pressure and fuel flow have been properly set and engine has warmed up sufficiently go to full throttle and check RPM is where you want it. DO NOT use the regulator adjustment to change high RPM. Use throttle cable controls at the engine for that, just like you would if it was on gasoline.
- Pressure on the gauge may drop by ½ pound at full throttle or under a load. That is normal, do not try to adjust for that.
- Once fuel system is set properly, low RPM and high RPM is set, then throttle the engine back to an idle and shut it off. Restart engine, ALWAYS WITH THE THROTTLE ALL THE WAY OFF. Propane can flood.
- Back firing problems on Propane systems are most commonly caused by valves out of adjustments, not the fuel system.