

# CARB-0156 GM 305 ENGINES

## 1. Idle Mixture Adjustment Screw

Turning the screw —IN will make the fuel mixture richer.  
Turning the screw —OUT will make the fuel mixture leaner.  
The Idle Mixture Adjustment Screw is adjusted correctly with an exhaust gas analyzer.  
Mixture should be adjusted to .50% - .90% CO (Carbon Monoxide).  
Without an exhaust gas analyzer: Turn the idle mixture screw in until engine starts to run rough, or loses RPM or speed.  
Then, turn idle screw out approx. 1/2 turn —OUT or until engine smooths out. This will ensure you're not in a lean mode but are in a richer mode so the engine will not burn up valve.

LINKAGE

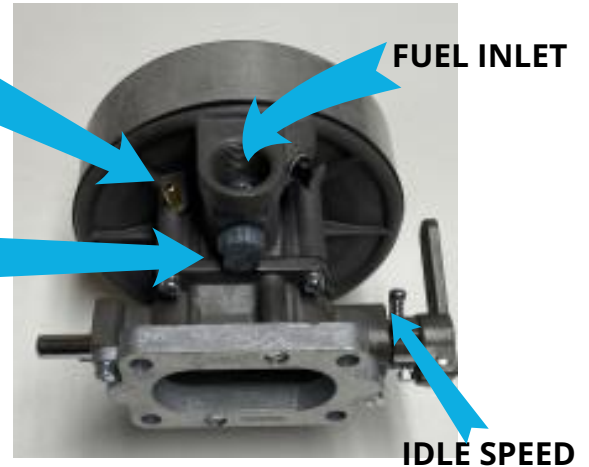


## 2. Idle Speed Adjustment Screw

Idle Speed should always be set to manufacturer's specifications.  
Most engines today idle between 650-750 RPM.

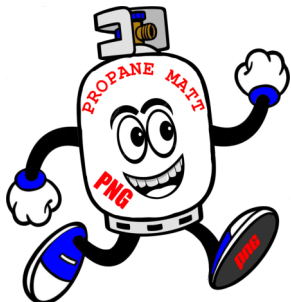
VACUUM PORT  
FOR VFF30-2 LOCKOFF

POWER MIXTURE



## 3. Power Mixture Adjustment Valve

This setting is preset at the factory and should not require adjustment.  
This adjustment is only effective when the engine is near full load condition.  
NOTE: Can only be adjusted with the engine loaded, or close to the fully loaded condition. If adjustment is needed, follow these steps:  
1. Set parking brake and block drive wheels.  
2. Connect a Tachometer to the engine.  
3. Accelerate engine to Full Rated RPM Level.  
4. Pull backwards on Tilt Lever until pump reaches hydraulic relief bypass.  
The RPM should drop according to the specifications for the hydraulic bypass (Typically 250-500 RPM).  
If the RPM will not drop, check and adjust your hydraulic pressure to the manufacturer's specifications before continuing.  
5. Turn the Power Adjustment Valve until the highest engine RPM is reached.  
NOTE: Using an exhaust gas analyzer your percentage of CO should be (.50% - 1.0%).



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