Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air that flows into the motor. This mechanism works in response to driver accelerator pedal input in the main. Generally, the throttle body is placed between the intake manifold and the air filter box. It is often fixed to or situated close to the mass airflow sensor. The largest component in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is so as to control air flow.

On several styles of cars, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles with electronic throttle control, likewise known as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This sensor sends the pedal position to the ECU or Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate turns within the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and allows a lot more air to flow into the intake manifold. Normally, an airflow sensor measures this adjustment and communicates with the ECU. In response, the Engine Control Unit then increases the amount of fluid being sent to the fuel injectors in order to generate the desired air-fuel ratio. Frequently a throttle position sensor or likewise called TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or somewhere in between these two extremes.

Some throttle bodies can include valves and adjustments to be able to control the least amount of airflow through the idle period. Even in units which are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

In a lot of automobiles it is normal for them to have a single throttle body. To be able to improve throttle response, more than one can be used and connected together by linkages. High performance automobiles like the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are somewhat the same. The carburator combines the functionality of both the throttle body and the fuel injectors into one. They can control the amount of air flow and combine the air and fuel together. Vehicles which have throttle body injection, that is called TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This permits an older engine the chance to be transformed from carburetor to fuel injection without significantly altering the design of the engine.