Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which controls the amount of air that flows into the motor. This particular mechanism functions in response to driver accelerator pedal input in the main. Usually, the throttle body is positioned between the intake manifold and the air filter box. It is often attached to or positioned next to the mass airflow sensor. The biggest component inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to be able to control air flow.

On the majority of automobiles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works to move the throttle plate. In cars with electronic throttle control, otherwise called "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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black part 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 when the pedal is released.

The throttle plate rotates inside the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and permits a lot more air to flow into the intake manifold. Normally, an airflow sensor measures this alteration 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 produce the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is connected to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or likewise called "WOT" position or anywhere in between these two extremes.

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

In lots of cars it is common for them to contain a single throttle body. So as to improve throttle response, more than one could be used and connected together by linkages. High performance vehicles like for instance the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for 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 rather the same. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They can control the amount of air flow and mix the air and fuel together. Cars which include throttle body injection, that is referred to as TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This enables an old engine the possibility to be converted from carburetor to fuel injection without really altering the engine design.