Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air which flows into the engine. This mechanism works in response to driver accelerator pedal input in the main. Usually, the throttle body is located between the intake manifold and the air filter box. It is usually connected 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 regulate air flow.

On most vehicles, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, otherwise called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular sensor sends the pedal position to the ECU or also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black part on the left hand side which is curved in design. The copper coil positioned close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate turns inside the throttle body every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits much more air to be able to flow into the intake manifold. Normally, an airflow sensor measures this change 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. Often a throttle position sensor or also called TPS is fixed to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

To be able to control the minimum air flow while idling, various throttle bodies may have adjustments and valves. Even in units which are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to be able to control the amount of air which could bypass the main throttle opening.

In several cars it is normal for them to have a single throttle body. To be able to improve throttle response, more than one could be utilized and attached together by linkages. High performance vehicles like the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or also known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They work by mixing the air and fuel together and by modulating the amount of air flow. Vehicles which include throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This permits an older engine the chance to be converted from carburetor to fuel injection without significantly altering the engine design.