Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air which flows into the engine. This mechanism works in response to driver accelerator pedal input in the main. Generally, the throttle body is situated between the air filter box and the intake manifold. It is normally fixed to or situated next to the mass airflow sensor. The biggest piece in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to control air flow.

On nearly all cars, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works so as to move the throttle plate. In vehicles with electronic throttle control, also known as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached 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 on accelerator pedal position along with inputs from various 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 that is curved in design. The copper coil located close to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates rotate inside the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to be able to permit much more air to flow into the intake manifold. Typically, 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 to be able to produce the desired air-fuel ratio. Frequently a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

To be able to control the minimum air flow while idling, several throttle bodies can include valves and adjustments. 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 also called IACV that the ECU uses in order to control the amount of air which could bypass the main throttle opening.

In many cars it is normal for them to contain one throttle body. To be able to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles such as the BMW M1, together with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

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