Throttle Body for Forklifts

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 which flows into the engine. This mechanism functions in response to operator accelerator pedal input in the main. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is usually fixed to or situated near the mass airflow sensor. The largest part inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is in order 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 cars with electronic throttle control, otherwise referred to as "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 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 connects to the black part on the left hand side that is curved in design. The copper coil placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates turn inside the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened so as to enable more air to flow into the intake manifold. Typically, 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 to be able to produce the desired air-fuel ratio. Often a throttle position sensor or TPS is fixed to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or "WOT" position or anywhere in between these two extremes.

To be able to control the minimum air flow while idling, several throttle bodies may include 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 otherwise called IACV that the ECU uses to regulate the amount of air that could bypass the main throttle opening.

In many vehicles it is normal for them to contain one throttle body. So as 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 the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or likewise known as "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are rather similar. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They can regulate the amount of air flow and mix the air and fuel together. Cars that have throttle body injection, which is called TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This permits an old engine the possibility to be transformed from carburetor to fuel injection without significantly altering the engine design.