Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which regulates the amount of air which flows into the motor. This particular mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is located between the intake manifold and the air filter box. It is normally connected to or placed next to the mass airflow sensor. The biggest part in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to regulate air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works to move the throttle plate. In cars consisting of 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 otherwise 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 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 placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates revolve inside the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened in order to permit a lot more air to flow into the intake manifold. Typically, 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 TPS is attached 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 likewise called "WOT" position or somewhere in between these two extremes.

So as to control the minimum air flow while idling, various throttle bodies may include adjustments and valves. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses in order to regulate the amount of air which can bypass the main throttle opening.

It is common that a lot of automobiles contain one throttle body, even if, more than one could be utilized and attached together by linkages in order to improve throttle response. High performance cars like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or otherwise 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 function by blending the fuel and air together and by regulating the amount of air flow. Cars that include throttle body injection, which is known as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without really changing the design of the engine.