Forklift Throttle Body

Throttle Body for Forklift - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This particular mechanism functions by placing pressure on the operator accelerator pedal input. Generally, the throttle body is placed between the air filter box and the intake manifold. It is normally attached to or situated near the mass airflow sensor. The largest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to regulate air flow.

On most automobiles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works so as to move the throttle plate. In cars consisting of electronic throttle control, otherwise referred to 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 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 connects to the black portion on the left hand side that is curved in design. The copper coil situated next to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate rotates in the throttle body each and every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and allows a lot more air to be able 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 in order to generate the desired air-fuel ratio. Often a throttle position sensor or also called TPS is attached 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 also called "WOT" position or anywhere in between these two extremes.

In order to control the least amount of air flow while idling, various throttle bodies could include valves and adjustments. 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 be able to regulate the amount of air that could bypass the main throttle opening.

It is common that several automobiles contain a single throttle body, though, more than one could be utilized and attached together by linkages so as to improve throttle response. High performance cars like 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 also 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 blending the air and fuel together and by controlling the amount of air flow. Automobiles that include throttle body injection, that is called CFI by Ford and TBI by GM, locate the fuel injectors within the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without significantly altering the engine design.