Forklift Throttle Body

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

On the majority of automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In automobiles consisting of electronic throttle control, otherwise known as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 together with inputs from different 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 rotate inside the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened to permit much more air to flow into the intake manifold. Usually, 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 in order to generate the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate to be able 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 regulate the least amount of air flow while idling, some throttle bodies can have valves and adjustments. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes in order to regulate the amount of air which could bypass the main throttle opening.

It is common that a lot of vehicles have a single throttle body, even if, more than one could be used and attached together by linkages in order to improve throttle response. High performance vehicles like for instance the BMW M1, along with high performance motorcycles like for example 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 into one. They operate by mixing the fuel and air together and by controlling the amount of air flow. Cars that include throttle body injection, that is called TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without really changing the engine design.