Forklift Throttle Body

Throttle Body for Forklift - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the engine. This mechanism operates in response to driver accelerator pedal input in the main. Usually, the throttle body is located between the air filter box and the intake manifold. It is often fixed to or positioned near the mass airflow sensor. The biggest component in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to control air flow.

On the majority of automobiles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In cars with electronic throttle control, also referred to as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects 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 different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil located next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates rotate in the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened 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 in order to generate the desired air-fuel ratio. Generally a throttle position sensor or TPS is connected to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or somewhere in between these two extremes.

To be able to regulate the minimum air flow while idling, various throttle bodies can include valves and adjustments. 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 likewise called IACV that the ECU utilizes to regulate the amount of air which can bypass the main throttle opening.

In several vehicles it is normal for them to have a single throttle body. So as to improve throttle response, more than one could be utilized and attached together by linkages. High performance vehicles such as the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They function by mixing the fuel and air together and by controlling the amount of air flow. Vehicles which include throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors within the throttle body. This enables an old engine the possibility to be transformed from carburetor to fuel injection without really changing the engine design.