Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which controls the amount of air that flows into the engine. This mechanism functions in response to operator accelerator pedal input in the main. Normally, the throttle body is placed between the intake manifold and the air filter box. It is usually attached to or positioned next to the mass airflow sensor. The biggest component inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to control air flow.

On several styles of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In vehicles with electronic throttle control, also called "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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side which is curved in design. The copper coil positioned next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates revolve within the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened to be able to permit a lot more air to flow into the intake manifold. Normally, 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 so as to produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is connected 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 also called "WOT" position or anywhere in between these two extremes.

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

It is common that various cars have a single throttle body, although, more than one can be utilized and connected together by linkages in order to improve throttle response. High performance vehicles like for instance the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as 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 air and fuel together and by regulating the amount of air flow. Cars that have throttle body injection, which is called CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the engine design.