

## Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part 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. Generally, the throttle body is situated between the air filter box and the intake manifold. It is usually attached to or positioned next to the mass airflow sensor. The largest piece in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is in order to regulate air flow.

On the majority of automobiles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In vehicles with electronic throttle control, also referred to 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 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 various engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that is curved in design. The copper coil located close 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 every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and enables much 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 produce the desired air-fuel ratio. Often a throttle position sensor or TPS is attached 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 also called "WOT" position or somewhere in between these two extremes.

Some throttle bodies may include adjustments and valves in order to regulate the minimum airflow through the idle period. 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 also called IACV that the ECU utilizes to be able to control the amount of air that could bypass the main throttle opening.

In various vehicles it is normal for them to have one throttle body. To be able to improve throttle response, more than one could be used and connected together by linkages. High performance automobiles like for example the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise known as "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 work by mixing the air and fuel together and by regulating the amount of air flow. Vehicles which include throttle body injection, that is called CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This allows an old engine the possibility to be transformed from carburetor to fuel injection without really changing the design of the engine.