

## Throttle Body for Forklifts

Forklift Throttle Body - 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 motor. This particular mechanism operates 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 often fixed to or placed close to the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is in order to control air flow.

On many styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with electronic throttle control, otherwise called "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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together with inputs from other engine sensors. The throttle body consists of 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 placed next to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate turns inside the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and allows much more air to be able to flow into the intake manifold. Usually, 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 to be able to generate the desired air-fuel ratio. Generally a throttle position sensor or otherwise 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 "WOT" position or somewhere in between these two extremes.

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

In lots of vehicles it is common for them to contain one throttle body. To be able to improve throttle response, more than one can be used and connected together by linkages. High performance automobiles such as 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 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 fuel injectors and the throttle body together. They operate by mixing the air and fuel together and by regulating the amount of air flow. Cars that have throttle body injection, which is referred to as TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This enables an older engine the opportunity to be converted from carburetor to fuel injection without significantly changing the engine design.