

## Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which controls the amount of air which flows into the engine. This mechanism operates in response to operator accelerator pedal input in the main. Generally, the throttle body is positioned between the air filter box and the intake manifold. It is usually attached to or positioned near the mass airflow sensor. The largest part within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is so as to control air flow.

On several kinds of cars, the accelerator pedal motion is communicated via 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 regulates 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 on accelerator pedal position along 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 that is curved in design. The copper coil located close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate revolves in the throttle body every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and enables much more air to flow into the intake manifold. Normally, 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 so as to produce the desired air-fuel ratio. Frequently a throttle position sensor or TPS is fixed to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the wide-open throttle or also called "WOT" position, the idle position or anywhere in between these two extremes.

To be able to regulate the lowest amount of air flow while idling, some throttle bodies may include valves and adjustments. Even in units which are not "drive-by-wire" there will often 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.

In several vehicles it is common for them to have a single throttle body. To be able to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles like for example the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or "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 into one. They operate by combining the air and fuel together and by modulating the amount of air flow. Automobiles which include throttle body injection, that is known as TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This enables an older engine the possibility to be transformed from carburetor to fuel injection without really changing the design of the engine.