

## Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to control the amount of air flow to the engine. This mechanism works by putting pressure upon the driver accelerator pedal input. Normally, the throttle body is positioned between the air filter box and the intake manifold. It is usually connected to or placed next to 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 to regulate air flow.

On the majority of automobiles, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In cars with electronic throttle control, also called "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 upon accelerator pedal position together with inputs from other engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side that is curved in design. The copper coil located next to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates revolve in the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened in order to permit more air to flow into the intake manifold. Typically, 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. Generally a throttle position sensor or also called TPS is fixed 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 anywhere in between these two extremes.

Some throttle bodies may have adjustments and valves in order to regulate the least amount of airflow during the idle period. Even in units that are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

In numerous cars it is normal for them to contain one throttle body. So as to improve throttle response, more than one can be utilized and connected together by linkages. High performance cars like the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or also 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 controlling the amount of air flow. Vehicles which have throttle body injection, which is known as TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This enables an older engine the chance to be converted from carburetor to fuel injection without really changing the engine design.