

## Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This particular mechanism functions by putting pressure upon the operator accelerator pedal input. Usually, the throttle body is placed between the intake manifold and the air filter box. It is usually connected to or positioned next to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to control air flow.

On most cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to move the throttle plate. In automobiles consisting of electronic throttle control, otherwise referred to as "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 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 connects to the black portion on the left hand side which is curved in design. The copper coil situated next to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates turn within the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened in order to enable 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 so as to produce the desired air-fuel ratio. Often a throttle position sensor or also called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or anywhere in between these two extremes.

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

In several cars it is common for them to contain one throttle body. To be able to improve throttle response, more than one can be utilized and attached together by linkages. High performance automobiles like for example the BMW M1, together 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 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 into one. They work by blending the fuel and air together and by controlling the amount of air flow. Automobiles that have throttle body injection, which is referred to as CFI by Ford and TBI by GM, put 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 design of the engine.