

## Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This mechanism functions by placing pressure on the driver accelerator pedal input. Usually, the throttle body is situated between the air filter box and the intake manifold. It is normally attached to or located 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 task is to control air flow.

On nearly all 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 consisting of electronic throttle control, otherwise known as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects 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 upon accelerator pedal position along with inputs from different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side that is curved in design. The copper coil positioned next to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate rotates in the throttle body each and every time the operator presses on the accelerator pedal. This opens the throttle passage and permits 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. Generally a throttle position sensor or TPS is fixed to the shaft of the throttle plate so as 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.

So as to regulate the lowest amount of air flow while idling, various throttle bodies may have adjustments and valves. 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 IACV that the ECU uses to regulate the amount of air which can bypass the main throttle opening.

In lots of cars it is normal for them to contain a single throttle body. So as to improve throttle response, more than one could be utilized and connected together by linkages. High performance vehicles such as the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are quite similar. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They are able to regulate the amount of air flow and combine the air and fuel together. Cars that have throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without really altering the design of the engine.