

## Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This particular mechanism operates by applying pressure on the operator accelerator pedal input. Usually, the throttle body is placed between the air filter box and the intake manifold. It is often connected to or positioned close to the mass airflow sensor. The biggest component inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to be able to regulate air flow.

On nearly all cars, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works in order to move the throttle plate. In vehicles consisting of 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 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 is attached to the black portion on the left hand side that is curved in design. The copper coil positioned near 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 applies pressure on the accelerator pedal. This opens the throttle passage and enables a lot more air to flow into the intake manifold. Normally, an airflow sensor measures this alteration 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 fixed 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.

To be able to regulate the least amount of air flow while idling, several throttle bodies could have valves and adjustments. Even in units that 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 utilizes so as to regulate the amount of air which could bypass the main throttle opening.

In numerous cars it is common for them to have one throttle body. So as to improve throttle response, more than one could be used and attached together by linkages. High performance vehicles like for instance 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 otherwise 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 function by mixing the air and fuel together and by modulating the amount of air flow. Automobiles that have throttle body injection, that is known as TBI by GM and CFI by Ford, put the fuel injectors in the throttle body. This permits an old engine the chance to be converted from carburetor to fuel injection without significantly changing the design of the engine.