

## Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to control the amount of air flow to the engine. This mechanism functions by placing pressure on the operator accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or positioned near the mass airflow sensor. The largest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to control air flow.

On many 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 automobiles with 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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together 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 which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate turns in the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits much more air to flow into the intake manifold. Usually, 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 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 otherwise called "WOT" position or somewhere in between these two extremes.

Several throttle bodies may include adjustments and valves so as to regulate the least amount of airflow all through the idle period. Even in units that are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to control the amount of air which can bypass the main throttle opening.

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

The carburator and the throttle body in a non-injected engine are rather similar. The carburator combines the functionality of both the throttle body and the fuel injectors together. They could regulate the amount of air flow and combine the air and fuel together. Cars that include throttle body injection, which is known as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This enables an old engine the opportunity to be transformed from carburetor to fuel injection without significantly changing the design of the engine.