

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 regulate the amount of air flow to the engine. This mechanism operates by applying pressure upon the operator accelerator pedal input. Usually, the throttle body is located between the air filter box and the intake manifold. It is usually connected to or located close 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 be able to regulate air flow.

On the majority of automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to move the throttle plate. In cars consisting of electronic throttle control, likewise called "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 also 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 has 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 located 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 allows much more air to be able 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or likewise called TPS is connected to the shaft of the throttle plate 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.

Various throttle bodies may have adjustments and valves to be able to regulate the lowest amount of airflow throughout the idle period. Even in units which are not "drive-by-wire" there would normally 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 could bypass the main throttle opening.

In various cars it is common for them to contain a single throttle body. In order to improve throttle response, more than one can be used and connected together by linkages. High performance cars like 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 like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They function by combining the air and fuel together and by modulating the amount of air flow. Automobiles that include throttle body injection, which is referred to as TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This permits an older engine the opportunity to be converted from carburetor to fuel injection without really altering the engine design.