

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 mechanism functions by putting pressure upon the driver accelerator pedal input. Generally, the throttle body is located between the intake manifold and the air filter box. It is normally attached to or positioned next to the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to regulate air flow.

On nearly all vehicles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works so as to move the throttle plate. In vehicles with electronic throttle control, also known as "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 sensor sends the pedal position to the ECU or 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 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 positioned close to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates revolve within the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to be able to permit a lot more air to flow into the intake manifold. Usually, 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is connected to the shaft of the throttle plate to be able 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 anywhere in between these two extremes.

To be able to regulate the minimum air flow while idling, various throttle bodies could have adjustments and valves. Even in units that are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

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

The carburetor and the throttle body in a non-injected engine are quite the same. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They are able to regulate the amount of air flow and mix the fuel and air together. Cars which have throttle body injection, which is called CFI by Ford and TBI by GM, locate the fuel injectors in the throttle body. This enables an older engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.