

Throttle Body for Forklift

Throttle Body for Forklift - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air which flows into the motor. This mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is usually connected to or situated close to the mass airflow sensor. The largest component in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to be able to control air flow.

On the majority of cars, the accelerator pedal motion is transferred through 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 connects 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 along with inputs from different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black part 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 as soon as the pedal is released.

Throttle plates turn inside the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to permit more air to flow into the intake manifold. Normally, 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 generate the desired air-fuel ratio. Frequently a throttle position sensor or likewise 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 also called "WOT" position or anywhere in between these two extremes.

To be able to regulate the minimum air flow while idling, several throttle bodies may 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 various cars it is common for them to contain one throttle body. In order to improve throttle response, more than one can be utilized and attached together by linkages. High performance cars like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are rather similar. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They are able to control the amount of air flow and combine the air and fuel together. Cars which have throttle body injection, that is called CFI by Ford and TBI by GM, 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 changing the engine design.