

Throttle Body for Forklifts

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that regulates the amount of air which flows into the motor. This particular mechanism functions in response to driver accelerator pedal input in the main. Usually, 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 largest component in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is so as to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works so as to move the throttle plate. In automobiles with electronic throttle control, likewise 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 otherwise known as 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 which is curved in design. The copper coil positioned close to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate rotates within the throttle body each and every time the driver presses on the accelerator pedal. This opens the throttle passage and permits much more air to be able to flow into the intake manifold. Typically, 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 so as to generate the desired air-fuel ratio. Generally a throttle position sensor or also called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

To be able to regulate the lowest amount of air flow while idling, various throttle bodies may include valves and adjustments. Even in units which are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or also called IACV that the ECU uses so as to control the amount of air that could bypass the main throttle opening.

In various automobiles it is normal for them to contain one throttle body. So as to improve throttle response, more than one could be used and attached together by linkages. High performance vehicles such as the BMW M1, along 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 also known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are rather similar. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They are able to regulate the amount of air flow and combine the fuel and air together. Automobiles that have throttle body injection, which is known as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This enables an older engine the chance to be converted from carburetor to fuel injection without really altering the design of the engine.