

Throttle Body for Forklift

Throttle Body for Forklift - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This mechanism functions by placing pressure on the operator accelerator pedal input. Generally, the throttle body is located between the intake manifold and the air filter box. It is normally connected to or located near the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to regulate air flow.

On numerous kinds of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In cars with electronic throttle control, likewise referred to 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 particular 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 other 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 placed close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate rotates inside the throttle body each and every time the operator presses on the accelerator pedal. This opens the throttle passage and enables a lot more air to be able 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 in order to produce the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the wide-open throttle or also called "WOT" position, the idle position or anywhere in between these two extremes.

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

In numerous automobiles it is common for them to contain a single throttle body. To be able to improve throttle response, more than one can be utilized and connected together by linkages. High performance cars like for example the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They operate by combining the fuel and air together and by regulating the amount of air flow. Cars that have throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This permits an old engine the opportunity to be transformed from carburetor to fuel injection without considerably changing the design of the engine.