

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air which flows into the engine. This particular mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is located between the intake manifold and the air filter box. It is often fixed to or located close to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to regulate air flow.

On the majority of cars, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In vehicles with electronic throttle control, likewise called "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 upon accelerator pedal position together with inputs from other engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil placed near this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate revolves inside the throttle body each and every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and enables a lot more air to flow into the intake manifold. Typically, 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 so as 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 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.

In order to control the lowest amount of air flow while idling, some throttle bodies may include adjustments and valves. 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 also called IACV which the ECU uses to be able to control the amount of air that can bypass the main throttle opening.

It is common that numerous vehicles have a single throttle body, even though, more than one can be used and connected together by linkages so as to improve throttle response. 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 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 throttle body and the fuel injectors into one. They work by mixing the fuel and air together and by controlling the amount of air flow. Automobiles that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This permits an older engine the possibility to be converted from carburetor to fuel injection without significantly changing the design of the engine.