

Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This particular mechanism functions by placing pressure on the driver accelerator pedal input. Generally, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or placed close to the mass airflow sensor. The biggest component within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is in order to regulate air flow.

On numerous kinds of cars, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, likewise called "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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along 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 which is curved in design. The copper coil located next to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate rotates inside the throttle body every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows more air to be able to flow into the intake manifold. Normally, 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 otherwise called TPS is attached 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 otherwise called "WOT" position or anywhere in between these two extremes.

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

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

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They operate by mixing the air and fuel together and by modulating the amount of air flow. Cars which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This permits an old engine the possibility to be converted from carburetor to fuel injection without significantly changing the design of the engine.