

Throttle Body for Forklifts

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

On several kinds of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles with electronic throttle control, likewise called "drive-by-wire" an electric motor regulates 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 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 has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that is curved in design. The copper coil situated next to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates rotate in the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened so as to permit more air to flow into the intake manifold. Usually, 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is connected to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or somewhere in between these two extremes.

To be able to regulate the lowest amount of air flow while idling, various throttle bodies may have 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 IACV that the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

It is common that lots of automobiles contain 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 vehicles like for example the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are rather the same. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They are able to control the amount of air flow and combine the fuel and air together. Automobiles that have throttle body injection, which is called TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This allows an old engine the possibility to be converted from carburetor to fuel injection without really changing the design of the engine.