

Forklift Throttle Body

Throttle Body for Forklifts - 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 mechanism works in response to driver accelerator pedal input in the main. Generally, the throttle body is situated between the air filter box and the intake manifold. It is normally attached to or located close to the mass airflow sensor. The largest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to be able to control air flow.

On the majority of cars, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works in order to move the throttle plate. In vehicles with electronic throttle control, also known as "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 on accelerator pedal position along with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil located close to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates revolve in the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened to be able to allow much more air to flow into the intake manifold. Normally, 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 to be able 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 so as 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 somewhere in between these two extremes.

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

In various automobiles it is normal for them to have a single throttle body. To be able to improve throttle response, more than one can be utilized and attached together by linkages. High performance vehicles such as 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 likewise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are quite the same. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They can modulate the amount of air flow and mix the air and fuel together. Vehicles that include throttle body injection, which is called CFI by Ford and TBI by GM, locate the fuel injectors in the throttle body. This permits an older engine the opportunity to be converted from carburetor to fuel injection without considerably changing the engine design.