

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which controls the amount of air which flows into the engine. This mechanism functions in response to operator accelerator pedal input in the main. Usually, 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 within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is to be able to control air flow.

On several kinds of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In cars consisting of electronic throttle control, also known 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 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 has a throttle position sensor. The throttle cable is attached 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 after the pedal is released.

Throttle plates rotate inside the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened so as to permit 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 so as to generate the desired air-fuel ratio. Generally a throttle position sensor or TPS is connected 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 otherwise called "WOT" position, the idle position or somewhere in between these two extremes.

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

In several cars it is normal for them to contain one throttle body. In order to improve throttle response, more than one can be used and connected together by linkages. High performance vehicles like for instance the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or "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 work by combining the air and fuel together and by controlling the amount of air flow. Cars that include throttle body injection, that is called TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This permits an old engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the engine design.