

Throttle Body for Forklifts

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 that flows into the engine. This mechanism functions in response to driver accelerator pedal input in the main. Normally, the throttle body is located between the air filter box and the intake manifold. It is usually fixed to or located next to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to control air flow.

On numerous styles of cars, 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, 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 along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black part on the left hand side that 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.

Throttle plates revolve inside the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to allow a lot more air to flow into the intake manifold. Typically, 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 in order to generate the desired air-fuel ratio. Frequently a throttle position sensor or 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 idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

Several throttle bodies could include valves and adjustments to be able to regulate the least amount of airflow through the idle period. Even in units which are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes in order to control the amount of air which can bypass the main throttle opening.

In several automobiles it is normal for them to contain one throttle body. So as to improve throttle response, more than one can be utilized and connected together by linkages. High performance automobiles like for example the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are quite similar. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They can regulate the amount of air flow and blend the fuel and air together. Cars that have throttle body injection, that is referred to as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This allows an older engine the opportunity to be converted from carburetor to fuel injection without really altering the design of the engine.