

Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air which flows into the motor. This mechanism works in response to driver accelerator pedal input in the main. Usually, the throttle body is situated between the intake manifold and the air filter box. It is often fixed to or positioned next to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On several 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 automobiles consisting of electronic throttle control, also referred to 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 particular 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 on accelerator pedal position along with inputs from various engine sensors. The throttle body has 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 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 each and every time pressure is applied on the accelerator. The throttle passage is then opened in order to permit more air to flow into the intake manifold. Usually, 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. Frequently a throttle position sensor or 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 also called "WOT" position or anywhere in between these two extremes.

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

It is common that many vehicles have a single throttle body, even though, more than one could be utilized and connected together by linkages in order to improve throttle response. High performance cars like the BMW M1, along with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or likewise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They work by combining the air and fuel together and by controlling the amount of air flow. Cars that have throttle body injection, which is referred to as CFI by Ford and TBI by GM, locate the fuel injectors in the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without really altering the engine design.