

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 regulates the amount of air that flows into the engine. This particular mechanism operates in response to operator accelerator pedal input in the main. Generally, the throttle body is located between the air filter box and the intake manifold. It is normally fixed to or placed close to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is so as to regulate air flow.

On various kinds of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles consisting of electronic throttle control, likewise referred to as "drive-by-wire" an electric motor controls 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from different engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side that is curved in design. The copper coil located close to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate within the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to be able to allow much more air to flow into the intake manifold. Typically, 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 in order to produce the desired air-fuel ratio. Often a throttle position sensor or also called 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 wide-open throttle or also 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, several throttle bodies could include adjustments and valves. 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 utilizes to control the amount of air which can bypass the main throttle opening.

It is common that a lot of automobiles contain one throttle body, although, more than one could be utilized and connected together by linkages so as to improve throttle response. 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 also 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 operate by combining the air and fuel together and by regulating the amount of air flow. Cars which have throttle body injection, that is referred to as CFI by Ford and TBI by GM, locate the fuel injectors inside 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.