

Throttle Body for Forklift

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 which flows into the motor. This mechanism works in response to operator accelerator pedal input in the main. Usually, the throttle body is situated between the intake manifold and the air filter box. It is often connected to or positioned close to the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to control air flow.

On many kinds of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles with electronic throttle control, otherwise called "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 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 portion on the left hand side which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates revolve within the throttle body 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. 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 produce the desired air-fuel ratio. Often a throttle position sensor or likewise 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 otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

In order to control the minimum air flow while idling, some throttle bodies can have valves and adjustments. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV which the ECU uses in order to control the amount of air which can bypass the main throttle opening.

It is common that many vehicles contain one throttle body, although, more than one can be used and connected together by linkages so as to improve throttle response. High performance automobiles like for instance the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as 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 throttle body and the fuel injectors into one. They function by mixing the air and fuel together and by regulating the amount of air flow. Automobiles which have throttle body injection, that is known as TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This allows an old engine the chance to be converted from carburetor to fuel injection without significantly changing the design of the engine.