

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 that flows into the engine. This particular 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 connected to or placed close to the mass airflow sensor. The largest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to regulate air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to move the throttle plate. In vehicles with electronic throttle control, otherwise called "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 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 various engine sensors. The throttle body consists of 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 situated next to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates rotate within the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened to permit a lot 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate 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.

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

In numerous cars it is normal for them to have one throttle body. In order to improve throttle response, more than one could be used and connected together by linkages. High performance cars like for instance the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or also known as "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 into one. They operate by combining the air and fuel together and by modulating the amount of air flow. Vehicles which include throttle body injection, which is called TBI by GM and CFI by Ford, put the fuel injectors in the throttle body. This allows an old engine the possibility to be converted from carburetor to fuel injection without considerably altering the design of the engine.