

Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to control the amount of air flow to the engine. This particular mechanism operates by applying pressure on the operator accelerator pedal input. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is usually fixed to or placed near the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to control air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works so as to move the throttle plate. In vehicles consisting of electronic throttle control, also referred to 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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together with inputs from other engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that is curved in design. The copper coil located near this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate rotates in the throttle body each time the operator presses on the accelerator pedal. This opens the throttle passage and allows much more air to be able to flow into the intake manifold. Typically, an airflow sensor measures this change 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. Often a throttle position sensor or otherwise 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 idle position, the wide-open position or likewise called "WOT" position or somewhere in between these two extremes.

Some throttle bodies can have adjustments and valves to be able to control the minimum airflow all through the idle period. 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 so as to regulate the amount of air that could bypass the main throttle opening.

It is common that many vehicles contain one throttle body, though, more than one could be utilized and connected together by linkages to be able to improve throttle response. High performance vehicles like for instance the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for 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 throttle body and the fuel injectors into one. They function by combining the air and fuel together and by modulating the amount of air flow. Automobiles that include throttle body injection, which is called CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This enables an older engine the opportunity to be converted from carburetor to fuel injection without really changing the design of the engine.