

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 mechanism functions by putting pressure on the operator accelerator pedal input. Generally, the throttle body is placed between the air filter box and the intake manifold. It is often fixed to or situated near the mass airflow sensor. The biggest component within 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 most vehicles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In automobiles with electronic throttle control, otherwise called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 upon 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 part on the left hand side which is curved in design. The copper coil positioned next to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates turn inside the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to permit more air to flow into the intake manifold. Typically, an airflow sensor measures this adjustment and communicates with the ECU. In response, the Engine Control Unit then increases the amount of fluid being sent to the fuel injectors to be able to generate the desired air-fuel ratio. Frequently a throttle position sensor or likewise 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 somewhere in between these two extremes.

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

In many automobiles it is common for them to contain a single throttle body. To be able to improve throttle response, more than one can be utilized and attached together by linkages. High performance cars like the BMW M1, along with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are rather similar. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They can control the amount of air flow and combine the fuel and air together. Vehicles that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This allows an old engine the opportunity to be transformed from carburetor to fuel injection without really altering the engine design.