

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This mechanism operates by putting pressure on the driver accelerator pedal input. Normally, the throttle body is located between the air filter box and the intake manifold. It is usually fixed to or situated next to the mass airflow sensor. The biggest part in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is so as to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works so as to move the throttle plate. In vehicles consisting of electronic throttle control, otherwise known as "drive-by-wire" an electric motor controls 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 otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together 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 which is curved in design. The copper coil placed close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate turns within the throttle body every time the driver applies pressure 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 produce the desired air-fuel ratio. Often a throttle position sensor or also called TPS is fixed to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or somewhere in between these two extremes.

Several throttle bodies could include adjustments and valves to be able to control the lowest amount of airflow all through the idle period. 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 otherwise called IACV which the ECU utilizes so as to regulate the amount of air that can bypass the main throttle opening.

In numerous vehicles it is common for them to have a single throttle body. In order to improve throttle response, more than one could be used and attached together by linkages. High performance automobiles such as 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."

The throttle body and the carburetor in a non-injected engine are somewhat the same. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They can modulate the amount of air flow and combine the fuel and air together. Vehicles that have throttle body injection, which is called TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This permits an old engine the possibility to be converted from carburetor to fuel injection without really changing the engine design.