

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 control the amount of air flow to the engine. This particular mechanism operates by placing pressure upon the driver accelerator pedal input. Usually, the throttle body is positioned between the intake manifold and the air filter box. It is usually connected to or placed close to the mass airflow sensor. The largest piece in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is in order to control air flow.

On most vehicles, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works so as to move the throttle plate. In cars consisting of electronic throttle control, likewise 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black part on the left hand side that 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.

The throttle plate rotates in the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and enables more air to be able to flow into the intake manifold. Usually, 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 to be able to produce the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is connected 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 likewise called "WOT" position or somewhere in between these two extremes.

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

In various automobiles it is normal for them to have a single throttle body. So as to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles like the BMW M1, along with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are quite similar. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They are able to modulate the amount of air flow and blend the air and fuel together. Vehicles which have throttle body injection, that is known as CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This enables an old engine the chance to be transformed from carburetor to fuel injection without significantly changing the engine design.