

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This mechanism works by placing pressure on the driver accelerator pedal input. Usually, the throttle body is placed between the air filter box and the intake manifold. It is usually connected to or placed next to the mass airflow sensor. The largest component in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to regulate air flow.

On various styles of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles with electronic throttle control, otherwise referred to 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon 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 portion on the left hand side that is curved in design. The copper coil placed next to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns in the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and enables 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 in order to generate the desired air-fuel ratio. Frequently a throttle position sensor or otherwise called TPS is attached to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

Some throttle bodies may include adjustments and valves so as to control the least amount of airflow throughout the idle period. Even in units which are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or also called IACV which the ECU utilizes to control the amount of air which could bypass the main throttle opening.

In various vehicles it is common for them to contain one throttle body. To be able to improve throttle response, more than one could be used and connected together by linkages. High performance automobiles like for instance the BMW M1, together with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are rather the same. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They can modulate the amount of air flow and blend the air and fuel together. Automobiles which include throttle body injection, that is referred to as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This enables an old engine the opportunity to be transformed from carburetor to fuel injection without really changing the engine design.