

Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which regulates the amount of air that flows into the motor. This mechanism operates in response to driver accelerator pedal input in the main. Usually, the throttle body is located between the air filter box and the intake manifold. It is often attached to or positioned close to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to control air flow.

On most automobiles, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works in order to move the throttle plate. In automobiles with electronic throttle control, likewise referred to as "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 on accelerator pedal position along with inputs from various 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 next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates turn within the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to allow more air to flow into the intake manifold. Normally, 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 generate the desired air-fuel ratio. Generally 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 wide-open throttle or also called "WOT" position, the idle position or anywhere in between these two extremes.

Various throttle bodies can have adjustments and valves so as to control the lowest amount of airflow through the idle period. Even in units that are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to regulate the amount of air which can bypass the main throttle opening.

It is common that various cars contain a single throttle body, even if, more than one can be utilized and attached together by linkages to be able to improve throttle response. High performance cars such as the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each 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 rather the same. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They can modulate the amount of air flow and mix the air and fuel together. Automobiles that have throttle body injection, which is called TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This allows an older engine the opportunity to be transformed from carburetor to fuel injection without really changing the engine design.