

Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that regulates the amount of air that flows into the engine. This mechanism works in response to operator accelerator pedal input in the main. Usually, the throttle body is situated between the intake manifold and the air filter box. It is normally attached to or placed close to the mass airflow sensor. The largest part in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is in order to regulate air flow.

On numerous styles of cars, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles consisting of electronic throttle control, also referred to as "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 upon 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 located close to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate rotates in the throttle body each time the driver applies pressure on the accelerator pedal. This opens the throttle passage and permits much more air to be able to flow into the intake manifold. Normally, an airflow sensor measures this alteration 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. Generally a throttle position sensor or TPS is attached to the shaft of the throttle plate to be able 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.

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

It is common that various cars have one throttle body, although, more than one can be utilized and connected together by linkages in order to improve throttle response. High performance automobiles like for instance the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are quite the same. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They can control the amount of air flow and blend the fuel and air together. Automobiles that include throttle body injection, that is referred to as CFI by Ford and TBI by GM, locate the fuel injectors within the throttle body. This allows an old engine the possibility to be transformed from carburetor to fuel injection without considerably altering the design of the engine.