

Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air that flows into the engine. This mechanism operates in response to driver accelerator pedal input in the main. Generally, the throttle body is positioned between the intake manifold and the air filter box. It is often connected to or positioned close to the mass airflow sensor. The largest part in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able 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 cars consisting of electronic throttle control, also known as "drive-by-wire" an electric motor controls 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 otherwise 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 connects to the black portion on the left hand side that is curved in design. The copper coil placed near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate turns inside the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and enables 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 so as to produce the desired air-fuel ratio. Generally a throttle position sensor or TPS is connected 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.

So as to control the minimum air flow while idling, some throttle bodies can have adjustments and valves. Even in units that 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 to regulate the amount of air which could bypass the main throttle opening.

It is common that lots of cars contain a single throttle body, though, more than one can be used and connected together by linkages to be able to improve throttle response. High performance vehicles like for example the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are somewhat the same. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They are able to regulate the amount of air flow and combine the fuel and air together. Automobiles which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, locate the fuel injectors in the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without significantly changing the design of the engine.