

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the engine. This mechanism works in response to driver accelerator pedal input in the main. Normally, the throttle body is situated between the intake manifold and the air filter box. It is often fixed to or positioned near the mass airflow sensor. The largest component within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is so as to control air flow.

On numerous 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 cars consisting of electronic throttle control, likewise known 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 particular 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 along with inputs from different engine sensors. The throttle body consists of 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 situated near this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns within the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and allows more air 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 so as to produce the desired air-fuel ratio. Frequently a throttle position sensor or also called 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 wide-open throttle or also called "WOT" position, the idle position or somewhere in between these two extremes.

So as to control the lowest amount of air flow while idling, some throttle bodies can have valves and adjustments. Even in units that are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to be able to control the amount of air which can bypass the main throttle opening.

In many cars it is common for them to contain a single throttle body. To be able to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles such as 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 "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 throttle body and the fuel injectors into one. They could control the amount of air flow and blend the air and fuel together. Automobiles which have throttle body injection, that is called TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without considerably altering the engine design.