

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which regulates the amount of air which flows into the engine. This particular mechanism works in response to operator accelerator pedal input in the main. Generally, the throttle body is located between the intake manifold and the air filter box. It is often connected to or positioned next to the mass airflow sensor. The biggest component within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to control air flow.

On most automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works in order to move the throttle plate. In cars with electronic throttle control, likewise known 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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil situated close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate rotates within the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows a lot more air to flow into the intake manifold. Normally, 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 to be able to generate 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 idle position, the wide-open position or "WOT" position or somewhere in between these two extremes.

To be able to control the least amount of air flow while idling, several throttle bodies could have valves and adjustments. 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 IACV which the ECU utilizes to control the amount of air that can bypass the main throttle opening.

It is common that lots of automobiles contain a single throttle body, though, more than one could be utilized and attached together by linkages so as to improve throttle response. High performance cars like the BMW M1, along with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They function by blending the fuel and air together and by modulating the amount of air flow. Cars which include throttle body injection, which is known as TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without really altering the design of the engine.