

Throttle Body for Forklift

Throttle Body for Forklifts - 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 functions in response to operator accelerator pedal input in the main. Usually, the throttle body is placed between the air filter box and the intake manifold. It is often connected to or situated close to the mass airflow sensor. The biggest part in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to control air flow.

On most vehicles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works in order to move the throttle plate. In vehicles consisting of electronic throttle control, also called "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 otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from various 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 located close to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate revolves within the throttle body each and every time the driver presses on the accelerator pedal. This opens the throttle passage and enables much 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 attached to the shaft of the throttle plate so as 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.

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 that the ECU utilizes to be able to regulate the amount of air that can bypass the main throttle opening.

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

The carburetor and the throttle body in a non-injected engine are rather the same. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They are able to modulate the amount of air flow and blend the air and fuel together. Automobiles which have throttle body injection, which is called TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This permits an older engine the opportunity to be transformed from carburetor to fuel injection without really changing the design of the engine.