

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air that flows into the motor. This particular mechanism works in response to driver accelerator pedal input in the main. Generally, the throttle body is located between the air filter box and the intake manifold. It is often fixed to or located next to the mass airflow sensor. The biggest component within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to be able to regulate air flow.

On many styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, likewise called "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 particular 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 together with inputs from other engine sensors. The throttle body consists of 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 located next to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns in the throttle body every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows more air to be able 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 generate the desired air-fuel ratio. Often a throttle position sensor or also called TPS is attached to the shaft of the throttle plate 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 minimum air flow while idling, some throttle bodies can include 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 also called IACV that the ECU uses to regulate the amount of air that can bypass the main throttle opening.

It is common that numerous cars have a single throttle body, even though, more than one could be used and connected together by linkages in order to improve throttle response. High performance vehicles like for example the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or likewise known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They work by mixing the air and fuel together and by modulating the amount of air flow. Cars that have throttle body injection, which is referred to as TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This permits an old engine the opportunity to be transformed from carburetor to fuel injection without significantly changing the engine design.