

Throttle Body for Forklifts

Throttle Body for Forklift - 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 motor. This mechanism works in response to driver accelerator pedal input in the main. Normally, the throttle body is located between the intake manifold and the air filter box. It is usually connected to or positioned near the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to regulate air flow.

On many 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 with 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 likewise 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 has a throttle position sensor. The throttle cable is attached to the black part on the left hand side that is curved in design. The copper coil located close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate rotates within the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and permits a lot more air to be able to flow into the intake manifold. Typically, 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. Frequently a throttle position sensor or likewise called TPS is fixed to the shaft of the throttle plate in order 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, several throttle bodies can include adjustments and valves. Even in units that are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or also called IACV that the ECU uses so as to regulate the amount of air that can bypass the main throttle opening.

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

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They work by combining the air and fuel together and by regulating the amount of air flow. Cars that have throttle body injection, that is called CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without considerably altering the engine design.