

Forklift Throttle Body

Throttle Body for Forklift - The throttle body is a component of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This mechanism works by applying pressure on the driver accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or situated near the mass airflow sensor. The largest component in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to be able to control air flow.

On nearly all cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to move the throttle plate. In cars consisting of electronic throttle control, otherwise called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This particular 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 on accelerator pedal position along with inputs from different engine sensors. The throttle body has 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 positioned close to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate rotates in the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and allows much more air to be able to flow into the intake manifold. Typically, 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 to be able to generate the desired air-fuel ratio. Generally a throttle position sensor or otherwise 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 likewise 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 could include adjustments and valves. Even in units which are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU uses to regulate the amount of air which can bypass the main throttle opening.

In several automobiles it is normal for them to contain a single throttle body. So as to improve throttle response, more than one could be utilized and connected together by linkages. High performance automobiles 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 also 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 into one. They operate by blending the fuel and air together and by controlling the amount of air flow. Automobiles that have throttle body injection, which is known as TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This allows an older engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.