

Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air which flows into the engine. This particular mechanism operates in response to operator accelerator pedal input in the main. Normally, the throttle body is located between the air filter box and the intake manifold. It is normally fixed to or placed near the mass airflow sensor. The largest part 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 the majority of vehicles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In automobiles with electronic throttle control, likewise referred to as "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 Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate within the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened to enable 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

To be able to regulate the lowest amount of air flow while idling, several throttle bodies may include valves and adjustments. 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 which the ECU uses to control the amount of air which could bypass the main throttle opening.

It is common that various automobiles have one throttle body, though, more than one could be utilized and attached together by linkages to be able to improve throttle response. High performance cars 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 called ITBs or otherwise known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are somewhat similar. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They are able to regulate the amount of air flow and combine the fuel and air together. Cars which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This allows an older engine the chance to be converted from carburetor to fuel injection without really altering the engine design.