

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which controls the amount of air which flows into the engine. This mechanism operates in response to operator accelerator pedal input in the main. Generally, the throttle body is positioned between the air filter box and the intake manifold. It is normally connected to or positioned next to the mass airflow sensor. The largest piece in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to control air flow.

On most cars, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In cars with 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 upon accelerator pedal position along with inputs from other engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side that is curved in design. The copper coil located near this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates rotate in the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened so as to enable a lot more air to flow into the intake manifold. Normally, 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 in order to generate the desired air-fuel ratio. Frequently a throttle position sensor or TPS is fixed 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 otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

Some throttle bodies could have valves and adjustments so as to control the least amount of airflow during the idle period. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes so as to regulate the amount of air which could bypass the main throttle opening.

In numerous automobiles it is normal for them to have one throttle body. So as to improve throttle response, more than one can be used and connected together by linkages. High performance cars such as the BMW M1, together with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as 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 function by blending the air and fuel together and by controlling the amount of air flow. Vehicles which include throttle body injection, that is referred to as TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This permits an older engine the opportunity to be transformed from carburetor to fuel injection without considerably changing the engine design.