

Throttle Body for Forklifts

Throttle Body for Forklifts - The throttle body is part of the intake control system in fuel injected engines in order to control the amount of air flow to the engine. This particular mechanism operates by applying pressure upon the operator accelerator pedal input. Usually, the throttle body is situated between the air filter box and the intake manifold. It is often fixed to or positioned near the mass airflow sensor. The largest piece within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to regulate air flow.

On several kinds of cars, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from various 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 close to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates rotate inside the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened so as to enable much more air 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 to be able to generate the desired air-fuel ratio. Frequently a throttle position sensor or otherwise called TPS is fixed 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 otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

Some throttle bodies may include adjustments and valves to be able to regulate the least amount of airflow through the idle period. 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 IACV which the ECU utilizes to control the amount of air which could bypass the main throttle opening.

In lots of vehicles it is normal for them to have one throttle body. So as to improve throttle response, more than one can be utilized and connected together by linkages. High performance automobiles like 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 otherwise known as "individual throttle bodies."

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