

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air which flows into the motor. This particular mechanism functions in response to driver accelerator pedal input in the main. Normally, the throttle body is situated between the air filter box and the intake manifold. It is usually fixed to or placed near the mass airflow sensor. The largest piece within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On nearly all cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, likewise known as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 together with inputs from various 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 when the pedal is released.

Throttle plates turn within the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened so as to permit much more air to flow into the intake manifold. Usually, 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 generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is connected to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or also called "WOT" position, the idle position or somewhere in between these two extremes.

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

In numerous cars it is normal for them to have a single throttle body. In order to improve throttle response, more than one could be used and attached together by linkages. High performance cars such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are rather the same. 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. Automobiles which have throttle body injection, which is called TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This enables an old engine the possibility to be converted from carburetor to fuel injection without considerably changing the design of the engine.