

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This particular mechanism functions by applying pressure upon the operator accelerator pedal input. Usually, the throttle body is positioned between the intake manifold and the air filter box. It is usually connected to or placed next to the mass airflow sensor. The largest component within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is so as to control air flow.

On nearly all cars, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In vehicles consisting of electronic throttle control, also called "drive-by-wire" an electric motor regulates 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 various engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion 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 once the pedal is released.

Throttle plates turn inside the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened so as to enable 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 so as to produce the desired air-fuel ratio. Frequently a throttle position sensor or likewise called TPS is fixed to the shaft of the throttle plate in order 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 anywhere in between these two extremes.

Some throttle bodies may include adjustments and valves so as to regulate the lowest 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 IACV which the ECU utilizes to control the amount of air that could bypass the main throttle opening.

In several cars it is normal for them to contain one throttle body. To be able 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 example the Suzuki Hayabusa have a separate throttle body for every 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 rather 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 mix the air and fuel together. Automobiles which include throttle body injection, that is known as CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This allows an older engine the possibility to be converted from carburetor to fuel injection without significantly altering the engine design.