

Throttle Body for Forklift

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

On most cars, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works in order to move the throttle plate. In cars consisting of electronic throttle control, likewise known as "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 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 is attached to the black portion 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 once the pedal is released.

The throttle plate rotates within the throttle body every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and enables much more air to be able to flow into the intake manifold. Usually, 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 generate the desired air-fuel ratio. Often a throttle position sensor or TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or anywhere in between these two extremes.

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

In various vehicles it is normal for them to contain one throttle body. So as to improve throttle response, more than one could be utilized and connected together by linkages. High performance vehicles like the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They operate by combining the air and fuel together and by regulating the amount of air flow. Cars which include throttle body injection, which is referred to as CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This allows an old engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the design of the engine.