

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 placing pressure on the operator accelerator pedal input. Normally, the throttle body is located between the air filter box and the intake manifold. It is normally connected to or placed next to the mass airflow sensor. The largest part within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On most vehicles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In automobiles consisting of electronic throttle control, also 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 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 on accelerator pedal position along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part 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 once the pedal is released.

The throttle plate rotates within the throttle body each and every time the driver presses on the accelerator pedal. This opens the throttle passage and permits 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 produce the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate 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 somewhere in between these two extremes.

Various throttle bodies can have valves and adjustments so as to control the lowest amount of airflow throughout 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 regulate the amount of air that 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 like the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or "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 into one. They work by mixing the air and fuel together and by regulating the amount of air flow. Automobiles which include throttle body injection, which is referred to as CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This enables an older engine the possibility to be transformed from carburetor to fuel injection without considerably altering the design of the engine.