

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which controls the amount of air which flows into the engine. This particular mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is placed between the air filter box and the intake manifold. It is often connected to or placed near the mass airflow sensor. The biggest component inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is so as to control air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works so as to move the throttle plate. In vehicles 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 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 portion on the left hand side which is curved in design. The copper coil located close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns in the throttle body each time the driver applies pressure on the accelerator pedal. This opens the throttle passage and allows a lot 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 also 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 "WOT" position, the idle position or anywhere in between these two extremes.

Some throttle bodies may include valves and adjustments to be able to regulate the lowest amount of airflow through the idle period. Even in units that are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes to regulate the amount of air that could bypass the main throttle opening.

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

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