

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air that flows into the motor. This mechanism works in response to operator accelerator pedal input in the main. Generally, the throttle body is situated between the intake manifold and the air filter box. It is often connected to or placed next to the mass airflow sensor. The largest piece in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to regulate air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In vehicles with electronic throttle control, likewise known as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects 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 on accelerator pedal position along with inputs from different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil placed near this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate turns in the throttle body each and every time the operator presses on the accelerator pedal. This opens the throttle passage and allows much more air to flow into the intake manifold. Typically, 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 to be able to generate the desired air-fuel ratio. Frequently 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 otherwise called "WOT" position, the idle position or somewhere in between these two extremes.

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

It is common that lots of automobiles have one throttle body, though, more than one can be utilized and attached together by linkages so as to improve throttle response. High performance vehicles like for example the BMW M1, along 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 somewhat the same. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They can control the amount of air flow and blend the fuel and air together. Automobiles that have throttle body injection, that is known as CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This permits an old engine the possibility to be transformed from carburetor to fuel injection without significantly altering the design of the engine.