

Throttle Body for Forklift

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 that flows into the engine. This mechanism works in response to operator accelerator pedal input in the main. Generally, the throttle body is placed between the air filter box and the intake manifold. It is usually connected to or located next to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to control air flow.

On most cars, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works so as to move the throttle plate. In vehicles with electronic throttle control, also referred to 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 upon accelerator pedal position together with inputs from different engine sensors. The throttle body has 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 near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate turns in the throttle body each time the operator presses on the accelerator pedal. This opens the throttle passage and allows more air to be able to flow into the intake manifold. Typically, an airflow sensor measures this adjustment 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. Generally a throttle position sensor or otherwise called TPS is attached to the shaft of the throttle plate to be able 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.

So as to control the lowest amount of air flow while idling, various throttle bodies can include valves and adjustments. 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 that the ECU utilizes to be able to control the amount of air that can bypass the main throttle opening.

It is common that several cars contain a single throttle body, even though, more than one could be utilized and attached together by linkages in order to improve throttle response. High performance vehicles like for example the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as 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 could regulate the amount of air flow and blend the fuel and air together. Vehicles that include throttle body injection, that is known as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without significantly changing the engine design.