

Throttle Body for Forklifts

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 operates by placing pressure upon the operator accelerator pedal input. Usually, the throttle body is located between the air filter box and the intake manifold. It is normally connected to or situated near the mass airflow sensor. The largest part in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to control air flow.

On various styles of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars consisting of electronic throttle control, likewise called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects 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 upon accelerator pedal position together 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 situated near this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates rotate in the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened in order to enable more air to flow into the intake manifold. Usually, 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or "WOT" position or somewhere in between these two extremes.

In order to control the least amount of air flow while idling, some throttle bodies can have adjustments and valves. Even in units which are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes in order to regulate the amount of air which could bypass the main throttle opening.

It is common that numerous automobiles have one throttle body, even if, more than one can be utilized and connected together by linkages to be able to improve throttle response. High performance automobiles like for example the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are quite similar. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They can modulate the amount of air flow and combine the fuel and air together. Automobiles that have throttle body injection, that is known as CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This permits an older engine the possibility to be converted from carburetor to fuel injection without considerably altering the engine design.