

Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This particular mechanism operates by applying pressure upon the driver accelerator pedal input. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is often attached to or placed next to the mass airflow sensor. The largest piece within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to regulate 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 vehicles with electronic throttle control, also 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 together with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side which 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.

Throttle plates turn in the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened to be able to allow 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 so as to produce the desired air-fuel ratio. Often a throttle position sensor or TPS is attached to the shaft of the throttle plate in order 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.

Some throttle bodies can include valves and adjustments so as to regulate the least amount of airflow all through the idle period. Even in units that 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 control the amount of air which could bypass the main throttle opening.

It is common that a lot of vehicles have a single throttle body, even though, more than one could be used and attached together by linkages in order to improve throttle response. High performance cars like for instance 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 called ITBs or likewise 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 throttle body and the fuel injectors together. They could modulate the amount of air flow and combine the air and fuel together. Automobiles which include throttle body injection, that is called CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This permits an older engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the engine design.