

Forklift Throttle Body

Throttle Body for Forklift - The throttle body is part of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This mechanism works by putting pressure on the driver accelerator pedal input. Usually, the throttle body is situated between the air filter box and the intake manifold. It is often fixed to or positioned next to the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to control air flow.

On the majority of 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, also known as "drive-by-wire" an electric motor controls 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 different engine sensors. The throttle body consists of 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 placed 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 and every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and enables 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 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 in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or somewhere in between these two extremes.

Various throttle bodies may include valves and adjustments so as to control the least amount of airflow throughout the idle period. 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 which the ECU utilizes to control the amount of air which could bypass the main throttle opening.

It is common that many automobiles contain a single throttle body, even though, more than one can be used and attached together by linkages to be able to improve throttle response. High performance automobiles such as the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each and every 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 somewhat the same. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They are able to modulate the amount of air flow and combine the fuel and air together. Vehicles that include throttle body injection, which is referred to as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This permits an older engine the chance to be transformed from carburetor to fuel injection without really altering the engine design.