

Throttle Body for Forklifts

Throttle Body for Forklift - The throttle body is part of the intake control system in fuel injected engines in order to control the amount of air flow to the engine. This mechanism operates by placing pressure on the driver accelerator pedal input. Normally, the throttle body is situated between the air filter box and the intake manifold. It is usually connected to or positioned close to the mass airflow sensor. The largest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to be able to control air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works in order to move the throttle plate. In vehicles with electronic throttle control, likewise 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 sensor sends the pedal position to the ECU or otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black portion on the left hand side that is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate revolves inside the throttle body each time the operator presses on the accelerator pedal. This opens the throttle passage and permits a lot more air to flow into the intake manifold. Usually, 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. Frequently a throttle position sensor or TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or somewhere in between these two extremes.

To be able to regulate the minimum air flow while idling, several throttle bodies can include valves and adjustments. Even in units which are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses to regulate the amount of air that could bypass the main throttle opening.

It is common that lots of automobiles contain one throttle body, even if, more than one could be used and connected together by linkages to be able to improve throttle response. High performance cars like for instance the BMW M1, along 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 likewise known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are somewhat similar. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They could modulate the amount of air flow and blend the air and fuel together. Automobiles which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This allows an older engine the opportunity to be converted from carburetor to fuel injection without significantly altering the engine design.