

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 works by placing pressure on the driver accelerator pedal input. Normally, the throttle body is situated between the intake manifold and the air filter box. It is usually attached to or placed near the mass airflow sensor. The largest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to control air flow.

On various styles of cars, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles with electronic throttle control, otherwise referred to as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular 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 other engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black part on the left hand side that is curved in design. The copper coil situated close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate turns in the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and permits a lot 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 in order to produce the desired air-fuel ratio. Generally a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate 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.

Several throttle bodies can include adjustments and valves to be able to control the least amount of airflow through the idle period. 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 utilizes to regulate the amount of air which can bypass the main throttle opening.

In numerous automobiles it is common for them to have one throttle body. So as to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles like the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They operate by blending the air and fuel together and by controlling the amount of air flow. Automobiles that have throttle body injection, that is called TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without significantly altering the engine design.