

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This mechanism works by putting pressure on the driver accelerator pedal input. Normally, the throttle body is situated between the intake manifold and the air filter box. It is often connected to or situated near the mass airflow sensor. The biggest piece in 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 numerous kinds 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 controls 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 other engine sensors. The throttle body consists of 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 placed close to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates revolve inside the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened to permit a lot more air to flow into the intake manifold. Normally, an airflow sensor measures this alteration 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 connected to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or somewhere in between these two extremes.

Various throttle bodies may include adjustments and valves to be able to control the least amount of airflow during the idle period. Even in units that are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to control the amount of air which could bypass the main throttle opening.

In lots of automobiles it is normal for them to contain one throttle body. To be able to improve throttle response, more than one could be utilized and connected together by linkages. High performance vehicles like the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also 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 fuel injectors and the throttle body into one. They could control the amount of air flow and blend the air and fuel together. Vehicles which have throttle body injection, which is known as TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This allows an old engine the chance to be transformed from carburetor to fuel injection without really changing the engine design.