

Throttle Body for Forklifts

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air that flows into the motor. This particular mechanism works in response to driver accelerator pedal input in the main. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is normally fixed to or located next to the mass airflow sensor. The largest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to be able to regulate air flow.

On numerous kinds of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, also referred to 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 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 situated near this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate rotates in the throttle body each 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. 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 in order to produce the desired air-fuel ratio. Generally a throttle position sensor or likewise called 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 wide-open throttle or also called "WOT" position, the idle position or anywhere in between these two extremes.

So as to regulate the least amount of air flow while idling, several throttle bodies may have valves and adjustments. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses in order to control the amount of air which could bypass the main throttle opening.

In numerous cars it is normal for them to contain a single throttle body. In order to improve throttle response, more than one could be used and attached together by linkages. High performance cars like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They operate by combining the fuel and air together and by controlling the amount of air flow. Vehicles that include throttle body injection, that is known as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This permits an older engine the chance to be converted from carburetor to fuel injection without significantly changing the engine design.