

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This mechanism operates by putting pressure upon the driver accelerator pedal input. Usually, the throttle body is placed between the air filter box and the intake manifold. It is usually attached to or situated near the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to control air flow.

On various styles of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In cars with electronic throttle control, also called "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 on accelerator pedal position along with inputs from other 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 which is curved in design. The copper coil located near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates rotate within the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened to be able to enable 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 so as to produce the desired air-fuel ratio. Frequently 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 likewise called "WOT" position or anywhere in between these two extremes.

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

In numerous automobiles it is common for them to contain one throttle body. In order to improve throttle response, more than one could be utilized and connected together by linkages. High performance vehicles such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or also 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 together. They work by combining the fuel and air together and by modulating the amount of air flow. Cars that include throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without significantly changing the design of the engine.