

Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the engine. This mechanism works in response to driver accelerator pedal input in the main. Usually, the throttle body is situated between the intake manifold and the air filter box. It is often attached to or placed close to the mass airflow sensor. The largest component inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is in order to control air flow.

On numerous kinds of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles consisting of 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 Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from different engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that is curved in design. The copper coil located close to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates revolve in the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened so as to allow much more air to flow into the intake manifold. Usually, 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. Frequently a throttle position sensor or also called TPS is connected to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or anywhere in between these two extremes.

So as to control the minimum air flow while idling, some throttle bodies can include adjustments and valves. 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 otherwise called IACV that the ECU utilizes in order to control the amount of air that could bypass the main throttle opening.

In several automobiles it is normal 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 cars like the BMW M1, together 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 also known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They operate by blending the fuel and air together and by regulating the amount of air flow. Cars which have throttle body injection, that is called TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This enables an old engine the possibility to be transformed from carburetor to fuel injection without really changing the design of the engine.