

Throttle Body for Forklifts

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air which flows into the engine. This mechanism functions 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 attached to or situated next to the mass airflow sensor. The biggest part within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is so as to regulate air flow.

On many styles of cars, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In vehicles consisting of electronic throttle control, also called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This sensor sends the pedal position to the ECU or also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from different engine sensors. The throttle body has 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 positioned next to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate in the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to allow a lot 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 so as to generate the desired air-fuel ratio. Frequently a throttle position sensor or also called TPS is fixed 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.

Various throttle bodies may have adjustments and valves in order to regulate the minimum airflow throughout the idle period. Even in units that are not "drive-by-wire" there will often 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 could bypass the main throttle opening.

It is common that various automobiles contain a single throttle body, even though, more than one could be utilized and attached together by linkages so as to improve throttle response. High performance vehicles such as the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are rather similar. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They could control the amount of air flow and mix the air and fuel together. Cars that have throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This permits an older engine the opportunity to be converted from carburetor to fuel injection without really changing the engine design.