

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which controls the amount of air which flows into the engine. This particular mechanism functions in response to driver accelerator pedal input in the main. Generally, the throttle body is situated between the intake manifold and the air filter box. It is normally fixed to or situated close to the mass airflow sensor. The largest piece in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is so as to control air flow.

On the majority of vehicles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works to move the throttle plate. In automobiles consisting of electronic throttle control, likewise known as "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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part 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 as soon as the pedal is released.

Throttle plates revolve in the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to be able 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 to be able 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 be able 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 anywhere in between these two extremes.

Various throttle bodies may include adjustments and valves so as to control the lowest amount of airflow all through the idle period. 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 likewise called IACV that the ECU uses in order to control the amount of air that can bypass the main throttle opening.

It is common that various automobiles contain a single throttle body, even if, more than one can be used and connected together by linkages in order to improve throttle response. High performance vehicles such as the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are somewhat similar. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They are able to modulate the amount of air flow and blend the fuel and air together. Vehicles that include throttle body injection, that is called CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without considerably changing the design of the engine.