

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 operator accelerator pedal input in the main. Usually, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or placed next 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 task is in order to control air flow.

On various styles of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles consisting of electronic throttle control, likewise referred to as "drive-by-wire" an electric motor controls 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 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 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 placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates turn inside the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to be able to enable more air to flow into the intake manifold. Typically, 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 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 idle position, the wide-open position or likewise called "WOT" position or anywhere in between these two extremes.

In order to regulate the minimum air flow while idling, some throttle bodies can have adjustments and valves. Even in units that 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 utilizes so as to control the amount of air which can bypass the main throttle opening.

It is common that lots of automobiles contain one throttle body, though, more than one can be utilized and attached together by linkages to be able to improve throttle response. High performance vehicles like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or otherwise known as "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 fuel injectors and the throttle body into one. They could regulate the amount of air flow and combine the fuel and air together. Cars which include throttle body injection, which is referred to as CFI by Ford and TBI by GM, put 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.