

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air which flows into the engine. This mechanism operates in response to operator accelerator pedal input in the main. Normally, the throttle body is located between the intake manifold and the air filter box. It is normally connected to or situated near the mass airflow sensor. The largest component within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to be able to control air flow.

On several kinds 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 referred to as "drive-by-wire" an electric motor controls 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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from various engine sensors. The throttle body consists of 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 positioned next to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates revolve within the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened in order to allow 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 generate the desired air-fuel ratio. Often a throttle position sensor or likewise 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 "WOT" position or somewhere in between these two extremes.

Various throttle bodies could have adjustments and valves in order to regulate the minimum airflow all through 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 which the ECU utilizes in order to control the amount of air which could bypass the main throttle opening.

In a lot of vehicles it is common for them to have a single throttle body. To be able to improve throttle response, more than one can be utilized and attached together by linkages. High performance cars like the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or "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 mixing the fuel and air together and by regulating the amount of air flow. Vehicles that include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This permits an older engine the opportunity to be converted from carburetor to fuel injection without significantly changing the design of the engine.