

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air that flows into the motor. This mechanism works in response to driver accelerator pedal input in the main. Generally, 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 biggest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is so as to control air flow.

On various styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with electronic throttle control, also known 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 otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil situated 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 so as 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 in order to generate the desired air-fuel ratio. Generally 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 wide-open throttle or otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

To be able to regulate the lowest amount of air flow while idling, various throttle bodies could have valves and adjustments. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV which the ECU utilizes in order to control the amount of air which could bypass the main throttle opening.

In several automobiles it is common for them to have one throttle body. So as to improve throttle response, more than one can be utilized and attached together by linkages. High performance automobiles like for instance 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 called ITBs or also known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They work by blending the air and fuel together and by regulating the amount of air flow. Cars which have throttle body injection, which is called CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This permits an old engine the opportunity to be transformed from carburetor to fuel injection without really altering the design of the engine.