

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines in order to regulate the amount of air flow to the engine. This particular mechanism operates by putting pressure on the driver accelerator pedal input. Normally, the throttle body is located between the air filter box and the intake manifold. It is normally connected to or placed close to the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to regulate air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works to move the throttle plate. In cars consisting of electronic throttle control, likewise 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 otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together with inputs from other engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that is curved in design. The copper coil situated near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates turn in the throttle body every 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. Normally, 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. Frequently 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 anywhere in between these two extremes.

To be able to regulate the minimum air flow while idling, various throttle bodies can include adjustments and valves. Even in units which are not "drive-by-wire" there would usually 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 that could bypass the main throttle opening.

In many automobiles it is common for them to have one throttle body. In order to improve throttle response, more than one can be used and attached together by linkages. High performance automobiles 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 called ITBs or likewise known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They operate by blending the fuel and air together and by regulating the amount of air flow. Automobiles that include throttle body injection, which is referred to as CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This permits an older engine the possibility to be converted from carburetor to fuel injection without significantly changing the engine design.