

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines in order to control the amount of air flow to the engine. This mechanism operates by placing pressure on the driver accelerator pedal input. Generally, the throttle body is positioned between the intake manifold and the air filter box. It is usually fixed to or positioned near the mass airflow sensor. The biggest component in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is in order to regulate air flow.

On nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works in order to move the throttle plate. In automobiles with electronic throttle control, likewise 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 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 connects to the black portion on the left hand side that is curved in design. The copper coil positioned close to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate turns inside the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows more air to flow into the intake manifold. Usually, 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 produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is attached to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or anywhere in between these two extremes.

Some throttle bodies can have adjustments and valves in order to regulate the lowest amount of airflow during the idle period. 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 otherwise called IACV which the ECU uses to be able to regulate the amount of air that can bypass the main throttle opening.

In several automobiles it is normal for them to contain a single throttle body. To be able to improve throttle response, more than one can be used and attached together by linkages. High performance vehicles like for instance the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or otherwise 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 together. They function by blending the fuel and air together and by modulating the amount of air flow. Cars which include throttle body injection, which is referred to as CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This allows an old engine the opportunity to be converted from carburetor to fuel injection without really changing the design of the engine.