

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to control the amount of air flow to the engine. This particular mechanism functions by placing pressure upon the operator accelerator pedal input. Generally, the throttle body is located between the intake manifold and the air filter box. It is normally fixed to or situated next to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to control air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In automobiles consisting of electronic throttle control, likewise referred to as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular 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 together with inputs from various 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 as soon as the pedal is released.

The throttle plate revolves in the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and enables more air to flow into the intake manifold. Normally, 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. Frequently a throttle position sensor or also called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or also called "WOT" position, the idle position or anywhere in between these two extremes.

Several throttle bodies can have valves and adjustments in order to regulate the least amount of airflow during the idle period. 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 likewise called IACV which the ECU uses to control the amount of air which could bypass the main throttle opening.

In lots of cars it is normal for them to have one throttle body. In order to improve throttle response, more than one could be used and connected together by linkages. High performance vehicles like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or also 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 into one. They operate by combining the air and fuel together and by controlling the amount of air flow. Vehicles that include throttle body injection, which is known as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This allows an old engine the opportunity to be transformed from carburetor to fuel injection without considerably altering the design of the engine.