

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This mechanism works by placing pressure upon the operator accelerator pedal input. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is normally connected to or situated next to the mass airflow sensor. The biggest 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 regulate air flow.

On nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works so as 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 sensor sends the pedal position to the ECU or also 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 has 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 next to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate rotates within the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits more air to flow into the intake manifold. Typically, an airflow sensor measures this alteration 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 attached to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or somewhere in between these two extremes.

So as to regulate the minimum air flow while idling, various throttle bodies could include adjustments and valves. Even in units which are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU utilizes to control the amount of air which can bypass the main throttle opening.

In many automobiles it is common for them to have a single throttle body. To be able to improve throttle response, more than one could be utilized and connected together by linkages. High performance vehicles such as the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each 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 combining the air and fuel together and by controlling the amount of air flow. Automobiles which include throttle body injection, which is referred to as TBI by GM and CFI by Ford, put the fuel injectors in the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without considerably altering the design of the engine.