

Throttle Body for Forklift

Throttle Body for Forklift - 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 functions by putting pressure on the driver accelerator pedal input. Generally, the throttle body is located between the air filter box and the intake manifold. It is often fixed to or placed near the mass airflow sensor. The biggest component 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 the majority of vehicles, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works so as to move the throttle plate. In cars consisting of electronic throttle control, also referred to as "drive-by-wire" an electric motor regulates 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 Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from different engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side that is curved in design. The copper coil located next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates rotate within the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened to be able to permit much 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. Often a throttle position sensor or also 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 idle position, the wide-open position or "WOT" position or anywhere in between these two extremes.

Some throttle bodies may include valves and adjustments so as to regulate the lowest amount of airflow all through the idle period. 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 IACV which the ECU utilizes to regulate the amount of air that could bypass the main throttle opening.

In lots of automobiles it is common for them to have a single throttle body. So as to improve throttle response, more than one can be utilized and attached together by linkages. High performance cars like the BMW M1, together with high performance motorcycles like for example 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 mixing the air and fuel together and by modulating the amount of air flow. Cars which have throttle body injection, that is called TBI by GM and CFI by Ford, situate the fuel injectors in the throttle body. This enables an older engine the chance to be transformed from carburetor to fuel injection without considerably altering the design of the engine.