

Throttle Body for Forklift

Throttle Body for Forklifts - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This particular mechanism functions by putting pressure on the driver accelerator pedal input. Normally, the throttle body is positioned between the air filter box and the intake manifold. It is normally fixed to or situated next to the mass airflow sensor. The largest component within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is so as to control air flow.

On several kinds of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, also known 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 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 other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side which 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 revolves within the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and allows a lot more air to flow into the intake manifold. Usually, 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 produce the desired air-fuel ratio. Frequently a throttle position sensor or also called TPS is fixed to the shaft of the throttle plate in order 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 somewhere in between these two extremes.

Several throttle bodies can include adjustments and valves in order to control 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 that the ECU uses so as to control the amount of air that could bypass the main throttle opening.

In various automobiles it is common for them to contain a single throttle body. In order to improve throttle response, more than one could be used and connected together by linkages. High performance cars like for example the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or likewise known as "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are rather the same. The carburator combines the functionality of both the throttle body and the fuel injectors together. They could control the amount of air flow and blend the fuel and air together. Cars that have throttle body injection, that is referred to as CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This enables an old engine the opportunity to be converted from carburetor to fuel injection without really altering the design of the engine.