

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This particular mechanism functions by placing pressure upon the driver accelerator pedal input. Normally, the throttle body is placed between the intake manifold and the air filter box. It is often fixed to or positioned close to the mass airflow sensor. The biggest part within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to regulate air flow.

On many 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, otherwise 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from different 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 which 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.

Throttle plates revolve in the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened so as to permit 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 produce the desired air-fuel ratio. Often a throttle position sensor or also called TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

To be able to control the minimum air flow while idling, various throttle bodies may have valves and adjustments. 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 that can bypass the main throttle opening.

It is common that numerous cars have one throttle body, though, more than one can be used and attached together by linkages so as to improve throttle response. High performance cars like for instance the BMW M1, along 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."

The throttle body and the carburetor in a non-injected engine are rather similar. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They could regulate the amount of air flow and mix the fuel and air together. Vehicles that have throttle body injection, that is known as CFI by Ford and TBI by GM, locate the fuel injectors within the throttle body. This allows an older engine the opportunity to be transformed from carburetor to fuel injection without considerably altering the design of the engine.