

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air which flows into the motor. This mechanism functions in response to driver accelerator pedal input in the main. Usually, the throttle body is positioned between the intake manifold and the air filter box. It is usually fixed to or located near the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is in order to control air flow.

On many kinds of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In cars consisting of electronic throttle control, likewise 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 particular sensor sends the pedal position to the ECU or likewise 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 connects 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 within the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and allows more air to be able 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

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

It is common that various automobiles have a single throttle body, although, more than one could be used and connected together by linkages in order to improve throttle response. High performance cars such as the BMW M1, along with high performance motorcycles like 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."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They function by combining the fuel and air together and by controlling the amount of air flow. Vehicles which include throttle body injection, that is known as CFI by Ford and TBI by GM, put the fuel injectors within the throttle body. This permits an older engine the possibility to be converted from carburetor to fuel injection without considerably altering the engine design.