Forklift Throttle Body

Forklift Throttle Body - 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 applying pressure on the driver accelerator pedal input. Generally, the throttle body is placed between the air filter box and the intake manifold. It is normally fixed to or placed close to the mass airflow sensor. The biggest piece in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is in order to regulate air flow.

On various kinds of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles with electronic throttle control, also referred to as "drive-by-wire" an electric motor controls 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 along with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part 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 as soon as the pedal is released.

The throttle plate rotates in the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and enables much 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. Often a throttle position sensor or 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 regulate the minimum air flow while idling, several throttle bodies could include adjustments and valves. Even in units that are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses to regulate the amount of air which could bypass the main throttle opening.

In many automobiles it is common for them to have one throttle body. So as to improve throttle response, more than one can be used and connected together by linkages. High performance automobiles such as 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 called ITBs or "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are somewhat similar. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They are able to control the amount of air flow and combine the air and fuel together. Vehicles that include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This permits an older engine the possibility to be transformed from carburetor to fuel injection without really changing the design of the engine.