Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which regulates the amount of air which flows into the motor. This mechanism works in response to operator accelerator pedal input in the main. Generally, the throttle body is positioned between the air filter box and the intake manifold. It is normally connected to or situated close to the mass airflow sensor. The biggest part inside 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 many kinds of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles with electronic throttle control, otherwise called "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 on accelerator pedal position together with inputs from other 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 that is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate rotates inside the throttle body each time the operator presses on the accelerator pedal. This opens the throttle passage and allows a lot more air to be able to flow into the intake manifold. Typically, 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 to be able to produce the desired air-fuel ratio. Frequently a throttle position sensor or TPS is connected to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

To be able to control the least amount of air flow while idling, various throttle bodies can have adjustments and valves. Even in units that are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses to control the amount of air which can bypass the main throttle opening.

It is common that many cars contain one throttle body, although, more than one could be used and attached together by linkages in order to improve throttle response. High performance automobiles such as the BMW M1, together with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are quite similar. The carburator combines the functionality of both the fuel injectors and the throttle body together. They can modulate the amount of air flow and combine the air and fuel together. Cars that include throttle body injection, that is known as TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without considerably changing the design of the engine.