Throttle Body for Forklifts

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 mechanism works by placing pressure on the driver accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or situated next to the mass airflow sensor. The biggest 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 various styles 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 cars with electronic throttle control, otherwise 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 sensor sends the pedal position to the ECU or otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on 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 positioned close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns within the throttle body each and every time the driver presses on the accelerator pedal. This opens the throttle passage and allows much more air 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 so as to produce the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate so as 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.

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

In a lot of vehicles it is common for them to have a single throttle body. In order to improve throttle response, more than one can be used and connected together by linkages. High performance vehicles like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are rather similar. The carburator combines the functionality of both the fuel injectors and the throttle body together. They could control the amount of air flow and mix the fuel and air together. Vehicles which include throttle body injection, which is known as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.