Throttle Body for Forklifts

Throttle Body for Forklift - 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 works by applying pressure upon the operator accelerator pedal input. Generally, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or positioned near the mass airflow sensor. The largest part in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to regulate air flow.

On nearly all cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to move the throttle plate. In vehicles with electronic throttle control, likewise known 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along 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 close to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates turn inside the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened in order to enable more air to flow into the intake manifold. Normally, 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 generate the desired air-fuel ratio. Frequently a throttle position sensor or also called TPS is attached to the shaft of the throttle plate 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 somewhere in between these two extremes.

Some throttle bodies may have valves and adjustments so as to control the least amount of airflow through the idle period. Even in units that are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV that the ECU uses to regulate the amount of air which can bypass the main throttle opening.

It is common that numerous vehicles have one throttle body, though, more than one can be used and connected together by linkages to be able to improve throttle response. High performance cars such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are somewhat the same. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They can control the amount of air flow and combine the fuel and air together. Vehicles which have throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This permits an older engine the chance to be transformed from carburetor to fuel injection without significantly altering the engine design.