Throttle Body for Forklifts

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which controls the amount of air that flows into the motor. This mechanism operates in response to driver accelerator pedal input in the main. Generally, the throttle body is placed between the intake manifold and the air filter box. It is normally fixed to or located close to the mass airflow sensor. The largest component within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is so as to control air flow.

On several styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles consisting of electronic throttle control, also referred to as "drive-by-wire" an electric motor regulates 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 Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached 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.

Throttle plates revolve within the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened to allow a lot 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 to be able 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 to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

Various throttle bodies may include adjustments and valves so as to control the minimum airflow during the idle period. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or also called IACV which the ECU utilizes to be able to regulate the amount of air which can bypass the main throttle opening.

It is common that various cars have a single throttle body, though, more than one can be used and connected together by linkages so as to improve throttle response. High performance automobiles like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each 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 throttle body and the fuel injectors together. They are able to control the amount of air flow and blend the air and fuel together. Vehicles which have throttle body injection, that is referred to as CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This allows an old engine the chance to be transformed from carburetor to fuel injection without really altering the design of the engine.