Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the engine. This mechanism works in response to operator accelerator pedal input in the main. Generally, the throttle body is placed between the intake manifold and the air filter box. It is often attached to or placed near the mass airflow sensor. The largest piece in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is in order to control air flow.

On various styles 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 regulates 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together 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 next to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates revolve within the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened to be able to allow much more air to flow into the intake manifold. Normally, an airflow sensor measures this adjustment 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 otherwise called TPS is fixed 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 "WOT" position, the idle position or anywhere in between these two extremes.

In order to regulate the least amount of air flow while idling, some throttle bodies can have valves and adjustments. 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 otherwise called IACV which the ECU uses to control the amount of air which could bypass the main throttle opening.

It is common that numerous vehicles have a single throttle body, even if, more than one can be used and attached together by linkages to be able to improve throttle response. High performance automobiles like for example the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The carburator and the throttle body 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 regulate the amount of air flow and combine the fuel and air together. Cars which have throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors in the throttle body. This permits an older engine the possibility to be transformed from carburetor to fuel injection without significantly changing the design of the engine.