Forklift Throttle Body

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 engine. This mechanism operates in response to driver accelerator pedal input in the main. Usually, the throttle body is situated between the intake manifold and the air filter box. It is often connected to or situated near the mass airflow sensor. The largest component within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to control air flow.

On various kinds 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 vehicles consisting of electronic throttle control, likewise known 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 likewise 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 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 situated next to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate rotates in the throttle body each and every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and permits 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 in order to generate the desired air-fuel ratio. Often a throttle position sensor or also 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 idle position, the wide-open position or "WOT" position or somewhere in between these two extremes.

Several throttle bodies can have valves and adjustments to be able to control the lowest amount of airflow throughout the idle period. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses so as to control the amount of air which could bypass the main throttle opening.

It is common that lots of vehicles contain a single throttle body, though, more than one can be utilized and connected together by linkages so as to improve throttle response. High performance cars such as 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 "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are somewhat similar. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They can regulate the amount of air flow and mix the air and fuel together. Cars which include throttle body injection, which is known as TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This allows an older engine the opportunity to be transformed from carburetor to fuel injection without really altering the engine design.