Throttle Body for Forklift

Throttle Body for Forklift - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This particular mechanism works by applying pressure upon the driver accelerator pedal input. Generally, the throttle body is located between the intake manifold and the air filter box. It is normally attached to or placed near 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 to regulate air flow.

On most vehicles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In vehicles with electronic throttle control, also called "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 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 placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate within the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened so as to enable a lot 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 to be able to generate the desired air-fuel ratio. Frequently a throttle position sensor or TPS is connected 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 likewise called "WOT" position or anywhere in between these two extremes.

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

In several automobiles it is normal for them to have one throttle body. So as to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles like for instance the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They operate by mixing the air and fuel together and by modulating the amount of air flow. Vehicles which include throttle body injection, which is referred to as CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This allows an old engine the chance to be converted from carburetor to fuel injection without really changing the engine design.