Throttle Body for Forklift

Throttle Body for Forklifts - The throttle body is part of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This mechanism operates by putting pressure upon the operator accelerator pedal input. Usually, the throttle body is located between the air filter box and the intake manifold. It is usually attached to or placed close to the mass airflow sensor. The largest part in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to control air flow.

On nearly all vehicles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works in order to move the throttle plate. In automobiles with electronic throttle control, also referred to as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular sensor sends the pedal position to the ECU or 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 has 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 placed next to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates rotate in the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened to be able to allow 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 generate the desired air-fuel ratio. Frequently a throttle position sensor or otherwise called 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 otherwise called "WOT" position or anywhere in between these two extremes.

Several throttle bodies can have adjustments and valves so as to regulate the least amount of airflow through 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 that the ECU utilizes to control the amount of air which could bypass the main throttle opening.

In numerous vehicles it is common for them to contain a single throttle body. In order to improve throttle response, more than one can be used and connected together by linkages. High performance vehicles like the BMW M1, together 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 otherwise known as "individual throttle bodies."

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