Throttle Body for Forklift

Forklift Throttle Body - 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 mechanism works by placing pressure on the driver accelerator pedal input. Generally, the throttle body is placed between the air filter box and the intake manifold. It is often attached to or positioned near the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is to be able to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to move the throttle plate. In cars with electronic throttle control, likewise 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 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 different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate revolves in the throttle body each time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows more air to flow into the intake manifold. Normally, an airflow sensor measures this change and communicates with the ECU. In response, the Engine Control Unit then increases the amount of fluid being sent to the fuel injectors so as to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or somewhere in between these two extremes.

In order to regulate the lowest amount of air flow while idling, some throttle bodies could include valves and adjustments. 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 otherwise called IACV that the ECU uses to be able to regulate the amount of air that can bypass the main throttle opening.

In various vehicles it is normal for them to contain one throttle body. So as to improve throttle response, more than one could be utilized and connected together by linkages. High performance vehicles like for example the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They work by mixing the fuel and air together and by regulating the amount of air flow. Cars that have throttle body injection, which is called TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This enables an older engine the opportunity to be converted from carburetor to fuel injection without considerably altering the engine design.