Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This particular mechanism operates by putting pressure on the operator accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is normally fixed to or positioned near the mass airflow sensor. The largest part in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is so as to control air flow.

On the majority of automobiles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works so as to move the throttle plate. In automobiles with electronic throttle control, otherwise referred to 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 particular 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 together 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 that is curved in design. The copper coil situated close to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate revolves in the throttle body every time the driver applies pressure on the accelerator pedal. This opens the throttle passage and allows more air to be able 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is connected to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the wide-open throttle or also called "WOT" position, the idle position or somewhere in between these two extremes.

In order to control the minimum air flow while idling, various throttle bodies may have adjustments and valves. Even in units that are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU uses to be able to regulate the amount of air which could bypass the main throttle opening.

In various cars it is normal for them to contain one throttle body. To be able to improve throttle response, more than one can be used and connected together by linkages. High performance automobiles like the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or also known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They work by mixing the air and fuel together and by controlling the amount of air flow. Automobiles which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without significantly altering the engine design.