Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines in order to regulate the amount of air flow to the engine. This particular mechanism works by putting pressure on the driver accelerator pedal input. Usually, the throttle body is placed between the air filter box and the intake manifold. It is usually attached to or located next to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is to regulate air flow.

On numerous kinds of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles consisting of electronic throttle control, likewise known as "drive-by-wire" an electric motor controls 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 otherwise known as 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 connects to the black portion on the left hand side that is curved in design. The copper coil placed near this is what returns the throttle body to its idle position after 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 more air to be able 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 TPS is connected to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or anywhere in between these two extremes.

In order to regulate the lowest amount of air flow while idling, several throttle bodies may include valves and adjustments. 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 utilizes in order to control the amount of air which could bypass the main throttle opening.

In several cars it is common for them to have one throttle body. To be able to improve throttle response, more than one can be used and attached together by linkages. High performance vehicles such as the BMW M1, along 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 "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 together. They operate by mixing the fuel and air together and by modulating the amount of air flow. Cars which include throttle body injection, that is called TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This allows an old engine the chance to be converted from carburetor to fuel injection without considerably changing the engine design.