Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This particular mechanism functions by placing pressure upon the driver accelerator pedal input. Generally, the throttle body is positioned between the intake manifold and the air filter box. It is often fixed to or situated near the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is in order to regulate air flow.

On most automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along with inputs from various engine sensors. The throttle body consists of 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 positioned close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns inside the throttle body each time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits a lot 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 likewise called TPS is connected to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

Various throttle bodies can include adjustments and valves so as to control the minimum airflow throughout the idle period. Even in units that 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 uses in order to control the amount of air that could bypass the main throttle opening.

In various cars it is common for them to have a single throttle body. In order to improve throttle response, more than one can be used and attached together by linkages. High performance cars such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise 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 fuel injectors and the throttle body together. They can regulate the amount of air flow and blend the fuel and air together. Automobiles that have throttle body injection, which is referred to as TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This permits an old engine the possibility to be transformed from carburetor to fuel injection without considerably altering the engine design.