Throttle Body for Forklifts

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

On the majority of automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, likewise referred to 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 along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil located near this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate turns inside the throttle body every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows a lot more air to flow into the intake manifold. Typically, 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. Generally a throttle position sensor or 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 "WOT" position or somewhere in between these two extremes.

Some throttle bodies could include valves and adjustments in order to regulate the lowest amount of airflow through 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 likewise called IACV that the ECU utilizes in order to control the amount of air that could bypass the main throttle opening.

It is common that lots of automobiles contain a single throttle body, even if, more than one could be utilized and attached together by linkages to be able to improve throttle response. High performance automobiles like for instance the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or otherwise 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 into one. They work by blending the fuel and air together and by modulating the amount of air flow. Cars that have throttle body injection, which is called TBI by GM and CFI by Ford, locate the fuel injectors within the throttle body. This allows an older engine the possibility to be converted from carburetor to fuel injection without really changing the engine design.