Throttle Body for Forklifts

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

On various kinds of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles consisting of electronic throttle control, also referred to as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This particular 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 upon accelerator pedal position along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side which is curved in design. The copper coil located close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate revolves within the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and allows more air to be able to flow into the intake manifold. Usually, 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 so as to produce the desired air-fuel ratio. Frequently 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 idle position, the wide-open position or also called "WOT" position or somewhere in between these two extremes.

In order to control the lowest amount of air flow while idling, various throttle bodies could include valves and adjustments. Even in units which are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

In lots of cars it is common for them to have one throttle body. To be able to improve throttle response, more than one can be utilized and connected together by linkages. High performance automobiles like for instance the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as 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 operate by combining the air and fuel together and by regulating the amount of air flow. Cars that include throttle body injection, which is referred to as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This allows an old engine the chance to be converted from carburetor to fuel injection without significantly altering the design of the engine.