Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to control the amount of air flow to the engine. This mechanism functions by placing pressure on the operator accelerator pedal input. Generally, the throttle body is situated between the air filter box and the intake manifold. It is often attached to or placed close to the mass airflow sensor. The biggest component in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to regulate air flow.

On many kinds of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with electronic throttle control, otherwise called "drive-by-wire" an electric motor controls 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side that is curved in design. The copper coil located close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate revolves in the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and permits much more air to flow into the intake manifold. Typically, 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 so as to produce the desired air-fuel ratio. Generally a throttle position sensor or also called TPS is fixed 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 likewise called "WOT" position or anywhere in between these two extremes.

To be able 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 will usually be a small electric motor driven valve, the Idle Air Control Valve or also called IACV that the ECU uses to control the amount of air which could bypass the main throttle opening.

In many cars it is common for them to contain one throttle body. In order to improve throttle response, more than one can be utilized and attached together by linkages. High performance vehicles such as the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are quite similar. The carburator combines the functionality of both the throttle body and the fuel injectors into one. They could regulate the amount of air flow and blend the air and fuel together. Automobiles which include throttle body injection, that is known as CFI by Ford and TBI by GM, put the fuel injectors within the throttle body. This permits an older engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.