Forklift Throttle Body

Throttle Body for Forklifts - 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 functions by applying pressure on the operator accelerator pedal input. Normally, the throttle body is situated between the intake manifold and the air filter box. It is normally attached to or positioned next to the mass airflow sensor. The largest component inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to regulate air flow.

On the majority of vehicles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works in order to move the throttle plate. In automobiles with electronic throttle control, likewise called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular sensor sends the pedal position to the ECU or likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position along 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 placed close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns within the throttle body each and every time the operator presses on the accelerator pedal. This opens the throttle passage and permits a lot more air 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 generate the desired air-fuel ratio. Frequently a throttle position sensor or TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

In order to control the least amount of air flow while idling, some throttle bodies can include adjustments and valves. Even in units that are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes to be able to regulate the amount of air that can bypass the main throttle opening.

It is common that lots of vehicles contain a single throttle body, even if, more than one can be used and attached together by linkages so as to improve throttle response. High performance cars like the BMW M1, together with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The carburator and the throttle body 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 modulate the amount of air flow and combine the air and fuel together. Cars that have throttle body injection, that is called TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without really changing the design of the engine.