Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This mechanism operates by putting pressure on the driver accelerator pedal input. Normally, the throttle body is placed between the air filter box and the intake manifold. It is usually fixed to or positioned near the mass airflow sensor. The biggest part in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is in order to control air flow.

On several styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of 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 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 connects to the black part on the left hand side that is curved in design. The copper coil situated near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate turns inside the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows much more air to flow into the intake manifold. Usually, an airflow sensor measures this adjustment 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 also called TPS is fixed to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or anywhere in between these two extremes.

To be able to regulate the minimum air flow while idling, various throttle bodies may include valves and adjustments. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or also called IACV that the ECU uses to be able to regulate the amount of air that could bypass the main throttle opening.

It is common that several vehicles have one throttle body, though, more than one can be used and attached together by linkages in order to improve throttle response. High performance cars like for example the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They work by blending the fuel and air together and by controlling the amount of air flow. Vehicles which have throttle body injection, that is referred to as CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This enables an older engine the opportunity to be converted from carburetor to fuel injection without considerably changing the engine design.