Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air that flows into the engine. This particular mechanism works in response to driver accelerator pedal input in the main. Usually, the throttle body is located between the intake manifold and the air filter box. It is often attached to or situated close to the mass airflow sensor. The largest component within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is in order to regulate air flow.

On many styles of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles with electronic throttle control, otherwise referred to as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached 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 upon accelerator pedal position along with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position as soon as 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 enables a lot more air to be able to flow into the intake manifold. Typically, 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 in order to produce the desired air-fuel ratio. Generally a throttle position sensor or 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 idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

Various throttle bodies could include valves and adjustments so as to regulate the least amount of airflow during the idle period. 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 also called IACV that the ECU uses so as to regulate the amount of air that can bypass the main throttle opening.

It is common that numerous automobiles contain one throttle body, even though, 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 the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or "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 mixing the air and fuel together and by regulating the amount of air flow. Automobiles which have throttle body injection, that is called CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This allows an older engine the possibility to be converted from carburetor to fuel injection without considerably altering the design of the engine.