Throttle Body for Forklift

Throttle Body for Forklift - The throttle body is part of the intake control system in fuel injected engines in order to control the amount of air flow to the engine. This particular mechanism functions by putting pressure upon the operator accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is usually attached to or situated near the mass airflow sensor. The biggest part in 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 several kinds of cars, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In vehicles with electronic throttle control, otherwise referred to as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 different engine sensors. The throttle body has 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 situated close to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates revolve within the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to be able to permit much more air 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. Frequently a throttle position sensor or also called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or somewhere in between these two extremes.

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

It is common that many automobiles contain one throttle body, even though, more than one could be utilized and attached together by linkages so as to improve throttle response. High performance automobiles like the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for 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 operate by blending the air and fuel together and by modulating the amount of air flow. Automobiles that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, situate the fuel injectors in the throttle body. This allows an older engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the engine design.