Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that regulates the amount of air that flows into the engine. This mechanism functions in response to operator accelerator pedal input in the main. Normally, the throttle body is situated between the air filter box and the intake manifold. It is often attached to or positioned close to the mass airflow sensor. The biggest part within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to regulate air flow.

On numerous styles of cars, 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 known as "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 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 various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that is curved in design. The copper coil positioned next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates rotate in the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened in order to enable 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 to be able to produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or "WOT" position or somewhere in between these two extremes.

Several throttle bodies could include valves and adjustments in order to regulate the minimum airflow through the idle period. Even in units which are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses to control the amount of air that could bypass the main throttle opening.

In several cars it is normal for them to have one throttle body. So as to improve throttle response, more than one can be used and connected together by linkages. High performance vehicles such as 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 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 function by combining the air and fuel together and by modulating the amount of air flow. Cars which have throttle body injection, that is known as TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This allows an older engine the chance to be converted from carburetor to fuel injection without really altering the engine design.