Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air which flows into the engine. This particular mechanism functions in response to operator accelerator pedal input in the main. Normally, the throttle body is situated between the intake manifold and the air filter box. It is often attached to or placed next to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is in order to control air flow.

On nearly all vehicles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works to move the throttle plate. In vehicles consisting of electronic throttle control, otherwise referred to 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 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 along with inputs from different engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black portion 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 in the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened in order to allow much more air to flow into the intake manifold. Typically, 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 in order to produce the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is connected to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the wide-open throttle or otherwise called "WOT" position, the idle position or somewhere in between these two extremes.

Some throttle bodies may include adjustments and valves so as to control the lowest amount of airflow through the idle period. Even in units which are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes so as to control the amount of air that can bypass the main throttle opening.

In many vehicles it is normal for them to have a single throttle body. In order to improve throttle response, more than one could be used and connected together by linkages. High performance vehicles like the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They operate by combining the fuel and air together and by regulating the amount of air flow. Automobiles that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This allows an old engine the chance to be converted from carburetor to fuel injection without really altering the engine design.