Throttle Body for Forklifts

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air which flows into the motor. This mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is situated between the intake manifold and the air filter box. It is normally fixed to or positioned near the mass airflow sensor. The largest part inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On nearly all cars, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In vehicles with electronic throttle control, also called "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 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 is attached to the black part on the left hand side which is curved in design. The copper coil placed next to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate turns in the throttle body every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits a lot 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 in order to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is fixed to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or "WOT" position or anywhere in between these two extremes.

Various throttle bodies could have adjustments and valves in order to regulate the lowest amount of airflow during the idle period. Even in units that are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to be able to regulate the amount of air which can bypass the main throttle opening.

It is common that many cars have a single throttle body, even if, more than one can be used and attached together by linkages in order to improve throttle response. High performance automobiles such as the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are quite similar. The carburator combines the functionality of both the throttle body and the fuel injectors together. They can control the amount of air flow and combine the fuel and air together. Cars which have throttle body injection, which is known as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This allows an older engine the opportunity to be converted from carburetor to fuel injection without significantly altering the engine design.