Throttle Body for Forklift

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that regulates the amount of air which flows into the motor. This mechanism operates in response to operator accelerator pedal input in the main. Normally, the throttle body is located between the air filter box and the intake manifold. It is usually connected to or situated next to the mass airflow sensor. The largest 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 most automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In vehicles consisting of 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together 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 positioned next to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate within the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened to permit much 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 also called TPS is connected to the shaft of the throttle plate 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.

Some throttle bodies can have valves and adjustments in order to regulate the lowest amount of airflow all through the idle period. Even in units which are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV which the ECU utilizes to control the amount of air which can bypass the main throttle opening.

In a lot of automobiles it is common for them to contain a single throttle body. To be able to improve throttle response, more than one can be utilized and attached together by linkages. High performance automobiles like the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are rather similar. The carburator combines the functionality of both the fuel injectors and the throttle body together. They are able to modulate the amount of air flow and mix the air and fuel together. Vehicles that have throttle body injection, that is referred to as CFI by Ford and TBI by GM, locate the fuel injectors in the throttle body. This allows an old engine the opportunity to be converted from carburetor to fuel injection without considerably changing the engine design.