Throttle Body for Forklift

Throttle Body for Forklifts - The throttle body is part of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This mechanism operates by putting pressure on the driver accelerator pedal input. Normally, the throttle body is positioned between the air filter box and the intake manifold. It is normally connected to or positioned next to the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, also called "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 upon accelerator pedal position along with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black part on the left hand side that is curved in design. The copper coil placed close to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates revolve within the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened in order to allow much more air to flow into the intake manifold. Usually, an airflow sensor measures this change 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. Generally a throttle position sensor or likewise called TPS is connected to the shaft of the throttle plate 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 anywhere in between these two extremes.

Some throttle bodies may have adjustments and valves in order to control the lowest amount of airflow all 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 otherwise called IACV that the ECU uses in order to control the amount of air that can bypass the main throttle opening.

It is common that numerous vehicles contain one throttle body, even though, more than one can be used and attached together by linkages so as to improve throttle response. High performance automobiles such as the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or "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 into one. They are able to modulate the amount of air flow and combine the fuel and air together. Vehicles that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This permits an older engine the opportunity to be transformed from carburetor to fuel injection without really altering the engine design.