Forklift Throttle Body

Throttle Body for Forklift - The throttle body is a component of the intake control system in fuel injected engines in order to regulate the amount of air flow to the engine. This mechanism works by putting pressure upon the driver accelerator pedal input. Generally, the throttle body is situated between the air filter box and the intake manifold. It is usually connected to or placed close to the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to regulate air flow.

On many 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 vehicles with electronic throttle control, also known as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This particular 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 various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side that is curved in design. The copper coil placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate within the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened so as to permit a lot more air to flow into the intake manifold. Normally, 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 otherwise called TPS is attached to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or anywhere in between these two extremes.

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

In lots of vehicles it is common for them to have one throttle body. To be able to improve throttle response, more than one could be used and connected together by linkages. High performance cars like for example the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They operate by mixing the air and fuel together and by modulating the amount of air flow. Automobiles that have throttle body injection, that is known as CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This permits an older engine the possibility to be transformed from carburetor to fuel injection without considerably changing the design of the engine.