Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This particular mechanism operates by putting pressure on the driver accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is usually fixed to or located next to the mass airflow sensor. The biggest part within 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 many kinds of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars consisting of electronic throttle control, likewise known as "drive-by-wire" an electric motor controls 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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on 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 situated next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates rotate within the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to be able to enable much more air to flow into the intake manifold. Usually, 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 so as to generate the desired air-fuel ratio. Often a throttle position sensor or TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or somewhere in between these two extremes.

In order to control the lowest amount of air flow while idling, various throttle bodies may have adjustments and valves. Even in units that are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to regulate the amount of air that can bypass the main throttle opening.

It is common that many cars contain one throttle body, even if, more than one can be used and connected together by linkages so as to improve throttle response. High performance automobiles such as 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 referred to as ITBs or otherwise known as "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 work by mixing the air and fuel together and by regulating the amount of air flow. Cars which include throttle body injection, that is known as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without considerably altering the engine design.