Forklift Throttle Body

Forklift Throttle Body - 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 applying pressure on the driver accelerator pedal input. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is usually fixed to or located near the mass airflow sensor. The biggest part within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to control air flow.

On numerous styles of cars, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles consisting of electronic throttle control, likewise referred to 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 otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on 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 part on the left hand side which is curved in design. The copper coil positioned 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 each time pressure is placed on the accelerator. The throttle passage is then opened to be able to permit a lot more air to flow into the intake manifold. Normally, 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 produce the desired air-fuel ratio. Frequently a throttle position sensor or TPS is fixed 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 otherwise called "WOT" position or anywhere in between these two extremes.

So as to control the minimum air flow while idling, several throttle bodies can include adjustments and valves. 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 likewise called IACV which the ECU uses so as to regulate the amount of air that can bypass the main throttle opening.

In a lot of cars it is common for them to have one throttle body. To be able to improve throttle response, more than one could be utilized and attached together by linkages. High performance vehicles such as the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or also 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 blending the fuel and air together and by regulating the amount of air flow. Cars which include throttle body injection, that is called TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This allows an old engine the opportunity to be transformed from carburetor to fuel injection without considerably altering the engine design.