Throttle Body for Forklift

Throttle Body for Forklift - 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 particular mechanism operates by putting pressure upon the driver accelerator pedal input. Generally, the throttle body is situated between the intake manifold and the air filter box. It is often connected to or positioned next to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is so as to regulate air flow.

On numerous kinds 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 consisting of electronic throttle control, likewise referred to as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 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 positioned close 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 time pressure is placed on the accelerator. The throttle passage is then opened in order to allow a lot more air to flow into the intake manifold. Typically, 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 so as to generate the desired air-fuel ratio. Often a throttle position sensor or TPS is attached 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 also called "WOT" position, the idle position or somewhere in between these two extremes.

To be able to regulate the minimum air flow while idling, various throttle bodies can include valves and adjustments. Even in units which are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to regulate the amount of air which could bypass the main throttle opening.

It is common that many cars contain one throttle body, although, more than one can be used and attached together by linkages in order to improve throttle response. High performance vehicles like for example the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They operate by mixing the fuel and air together and by modulating the amount of air flow. Automobiles that include throttle body injection, that is called TBI by GM and CFI by Ford, situate the fuel injectors in the throttle body. This permits an old engine the possibility to be converted from carburetor to fuel injection without really altering the design of the engine.