Throttle Body for Forklift

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

On various styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles consisting of electronic throttle control, otherwise known 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 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 portion on the left hand side that is curved in design. The copper coil situated near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates rotate inside the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened to allow a lot more air to flow into the intake manifold. Normally, 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or TPS is connected 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 likewise called "WOT" position or anywhere in between these two extremes.

In order to control the minimum air flow while idling, various throttle bodies could include valves and adjustments. Even in units which are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU utilizes to control the amount of air that could bypass the main throttle opening.

In various vehicles it is normal for them to have one throttle body. In order to improve throttle response, more than one could be utilized and attached 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 each cylinder. These models are referred to as ITBs or likewise 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 into one. They operate by mixing the fuel and air together and by controlling the amount of air flow. Vehicles that have throttle body injection, that is referred to as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the design of the engine.