Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part 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 placing pressure upon the operator accelerator pedal input. Usually, the throttle body is placed between the intake manifold and the air filter box. It is usually fixed to or placed close to the mass airflow sensor. The largest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to be able to regulate air flow.

On nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In cars consisting of electronic throttle control, otherwise referred to as "drive-by-wire" an electric motor regulates 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 along with inputs from different engine sensors. The throttle body has 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 situated close to this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate revolves in the throttle body each time the operator presses on the accelerator pedal. This opens the throttle passage and allows much more air to be able to flow into the intake manifold. Typically, 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or TPS is connected to the shaft of the throttle plate in order 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, several throttle bodies may include valves and adjustments. 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 otherwise called IACV which the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

It is common that a lot of automobiles have one throttle body, although, more than one could be utilized and connected together by linkages so as to improve throttle response. High performance vehicles like the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They work by combining the air and fuel together and by regulating the amount of air flow. Vehicles which have throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This enables an older engine the opportunity to be converted from carburetor to fuel injection without considerably changing the engine design.