Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This mechanism operates by placing pressure on the driver accelerator pedal input. Generally, the throttle body is placed between the intake manifold and the air filter box. It is usually fixed to or positioned near the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to regulate air flow.

On nearly all cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to be able to move the throttle plate. In automobiles consisting of electronic throttle control, likewise known 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 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 different 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 near this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates turn within the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened so as to permit a lot more air to flow into the intake manifold. Usually, 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 to be able to generate the desired air-fuel ratio. Generally a throttle position sensor or TPS is attached to the shaft of the throttle plate in order 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.

Some throttle bodies could include valves and adjustments in order to control the lowest amount of airflow during the idle period. 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 which the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

In a lot of vehicles it is normal for them to have a single throttle body. To be able to improve throttle response, more than one could be used and connected together by linkages. High performance cars such as 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 "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 function by blending the fuel and air together and by modulating the amount of air flow. Automobiles that have throttle body injection, that is called TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This permits an older engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the engine design.