Throttle Body for Forklifts

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines so as to regulate the amount of air flow to the engine. This mechanism works by applying pressure upon the operator accelerator pedal input. Normally, the throttle body is placed between the air filter box and the intake manifold. It is normally fixed to or located close to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is so as to control air flow.

On most cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works in order to move the throttle plate. In vehicles consisting of electronic throttle control, also called "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached 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 other engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side that is curved in design. The copper coil situated next to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates turn within the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened in order to permit more air to flow into the intake manifold. Usually, 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 so as to generate the desired air-fuel ratio. Generally a throttle position sensor or TPS is attached 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 somewhere in between these two extremes.

Some throttle bodies could include adjustments and valves so as to regulate the minimum airflow throughout the idle period. Even in units that are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to be able to control the amount of air which can bypass the main throttle opening.

In numerous vehicles it is common for them to contain a single throttle body. In order to improve throttle response, more than one could be utilized and connected together by linkages. High performance automobiles such as the BMW M1, along 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 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 throttle body and the fuel injectors into one. They function by mixing the fuel and air together and by controlling the amount of air flow. Vehicles which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This enables an old engine the chance to be transformed from carburetor to fuel injection without significantly altering the engine design.