Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This particular mechanism operates by applying pressure upon the operator accelerator pedal input. Generally, the throttle body is situated between the intake manifold and the air filter box. It is often fixed to or positioned near the mass airflow sensor. The largest component in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to control air flow.

On numerous styles of vehicles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with electronic throttle control, also referred to 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 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 together 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 which is curved in design. The copper coil placed next to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate revolves in the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits much 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. Generally a throttle position sensor or TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

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

It is common that numerous vehicles have a single throttle body, although, more than one can be utilized and attached together by linkages to be able to improve throttle response. High performance automobiles like the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The carburator and the throttle body in a non-injected engine are somewhat similar. The carburator combines the functionality of both the fuel injectors and the throttle body together. They are able to modulate the amount of air flow and combine the air and fuel together. Cars which have throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This permits an older engine the opportunity to be converted from carburetor to fuel injection without really altering the design of the engine.