Throttle Body for Forklifts

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 mechanism functions by placing pressure upon the operator accelerator pedal input. Normally, the throttle body is placed between the air filter box and the intake manifold. It is often fixed to or situated near the mass airflow sensor. The biggest component in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is so as to regulate air flow.

On many 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 vehicles with electronic throttle control, otherwise called "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 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 upon accelerator pedal position together with inputs from other engine sensors. The throttle body has 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 close to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate in the throttle body every time pressure is applied on the accelerator. The throttle passage is then opened so as to enable much 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 in order to produce the desired air-fuel ratio. Generally a throttle position sensor or likewise called TPS is connected 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 "WOT" position or somewhere in between these two extremes.

To be able to regulate the least amount of air flow while idling, various throttle bodies can have adjustments and valves. 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 which the ECU uses so as to regulate the amount of air which could bypass the main throttle opening.

It is common that lots of vehicles contain a single throttle body, although, more than one can be used and attached together by linkages to be able to improve throttle response. High performance cars like the BMW M1, along with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or "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 throttle body and the fuel injectors together. They can regulate the amount of air flow and mix the fuel and air together. Automobiles that include throttle body injection, which is called TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This enables an old engine the opportunity to be transformed from carburetor to fuel injection without significantly changing the design of the engine.