Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which controls the amount of air that flows into the engine. This particular mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is situated between the intake manifold and the air filter box. It is often fixed to or situated near the mass airflow sensor. The largest component in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In vehicles consisting of electronic throttle control, likewise known as "drive-by-wire" an electric motor regulates 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 otherwise known as 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 is attached to the black portion on the left hand side which is curved in design. The copper coil located next to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate in the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened to allow more air to flow into the intake manifold. Typically, an airflow sensor measures this change 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. Often a throttle position sensor or TPS is fixed to the shaft of the throttle plate so as 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 anywhere in between these two extremes.

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

It is common that a lot of vehicles contain a single throttle body, even though, more than one can be utilized and attached together by linkages to be able to improve throttle response. High performance cars like for instance 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 "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body together. They function by blending the air and fuel together and by regulating the amount of air flow. Cars that include throttle body injection, that is known as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without really changing the engine design.