Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that regulates the amount of air which flows into the engine. This 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 normally connected to or placed next to the mass airflow sensor. The biggest component in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is in order to regulate air flow.

On the majority of vehicles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works so as to move the throttle plate. In cars with electronic throttle control, also 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 particular sensor sends the pedal position to the ECU or 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 consists of 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 located close to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate turns inside the throttle body each and every time the operator presses on the accelerator pedal. This opens the throttle passage and enables much more air to be able to flow into the intake manifold. Typically, 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 to be able to produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called 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 wide-open throttle or "WOT" position, the idle position or anywhere in between these two extremes.

To be able to regulate the least amount of air flow while idling, various throttle bodies could have valves and adjustments. 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 also called IACV that the ECU uses to be able to control the amount of air that can bypass the main throttle opening.

In various cars it is common for them to contain a single throttle body. To be able to improve throttle response, more than one could be utilized and attached together by linkages. 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 every cylinder. These models are referred to as ITBs or likewise known as "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 into one. They operate by blending the fuel and air together and by controlling the amount of air flow. Cars that have throttle body injection, that is known as CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without significantly changing the design of the engine.