

Throttle Body for Forklifts

Throttle Body for Forklift - 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 motor. This particular mechanism operates in response to operator accelerator pedal input in the main. Generally, the throttle body is placed between the air filter box and the intake manifold. It is often attached to or positioned near the mass airflow sensor. The biggest part within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is so as to regulate air flow.

On many kinds of vehicles, 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, likewise called "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 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 part on the left hand side that is curved in design. The copper coil placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates turn inside the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to be able to permit more air to flow into the intake manifold. Normally, 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. Frequently a throttle position sensor or also called TPS is fixed 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 somewhere in between these two extremes.

In order to regulate the least amount of air flow while idling, some throttle bodies can have valves and adjustments. Even in units which are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV that the ECU uses so as to regulate the amount of air that can bypass the main throttle opening.

In numerous vehicles it is common for them to have a single throttle body. To be able to improve throttle response, more than one could be used and attached together by linkages. High performance cars such as 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 also 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 together. They operate by blending the air and fuel together and by modulating the amount of air flow. Automobiles which have throttle body injection, which is called CFI by Ford and TBI by GM, locate the fuel injectors in the throttle body. This permits an older engine the opportunity to be transformed from carburetor to fuel injection without significantly altering the design of the engine.