

Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines in order to regulate the amount of air flow to the engine. This mechanism works by applying pressure on the operator accelerator pedal input. Usually, the throttle body is located between the intake manifold and the air filter box. It is usually attached to or positioned near the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is so as to regulate air flow.

On various styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn 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 is attached 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 along with inputs from other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side that is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates rotate within the throttle body each and 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or also called TPS is attached to the shaft of the throttle plate to be able 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.

Several throttle bodies could include valves and adjustments in order 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 IACV which the ECU uses to control the amount of air which can bypass the main throttle opening.

It is common that many automobiles have a single throttle body, though, more than one could be utilized and connected together by linkages in order to improve throttle response. High performance automobiles such as 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 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 combining the air and fuel together and by controlling the amount of air flow. Automobiles which include throttle body injection, that is called CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This allows an older engine the opportunity to be converted from carburetor to fuel injection without considerably changing the design of the engine.