

Throttle Body for Forklift

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air that flows into the motor. This particular mechanism functions in response to operator accelerator pedal input in the main. Generally, the throttle body is situated between the air filter box and the intake manifold. It is often fixed to or located close to the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to control air flow.

On the majority of vehicles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In automobiles with electronic throttle control, also called "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This 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 placed next to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates revolve inside 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 adjustment 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 generate the desired air-fuel ratio. Generally a throttle position sensor or likewise called TPS is connected to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

Various throttle bodies may have valves and adjustments to be able to regulate the minimum airflow all through the idle period. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes to regulate the amount of air which can bypass the main throttle opening.

It is common that several cars contain a single throttle body, even though, more than one can be used and attached together by linkages to be able to improve throttle response. High performance cars such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are somewhat similar. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They can regulate the amount of air flow and combine the air and fuel together. Cars which have throttle body injection, which is referred to as CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without significantly altering the design of the engine.