

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the motor. This particular mechanism works in response to operator accelerator pedal input in the main. Usually, the throttle body is located between the air filter box and the intake manifold. It is often attached to or situated next to 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 function is in order to control air flow.

On the majority of cars, the accelerator pedal motion is transferred through the throttle cable, hence activating the throttle linkages works to move the throttle plate. In vehicles consisting of electronic throttle control, otherwise referred to 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 various 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 near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates rotate inside the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened to be able to enable a lot more air to flow into the intake manifold. Usually, 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 in order 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 so as 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.

Some throttle bodies can include adjustments and valves so as to control the least amount of airflow through the idle period. Even in units which are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes to control the amount of air which can bypass the main throttle opening.

It is common that several vehicles have one throttle body, though, more than one could be utilized and connected together by linkages to be able to improve throttle response. High performance automobiles like the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

The carburetor and the throttle body in a non-injected engine are somewhat the same. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They can modulate the amount of air flow and combine the air and fuel together. Cars that include throttle body injection, that is called TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This allows an old engine the opportunity to be converted from carburetor to fuel injection without significantly changing the engine design.