

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which regulates the amount of air which flows into the motor. This mechanism functions in response to operator accelerator pedal input in the main. Normally, the throttle body is situated between the intake manifold and the air filter box. It is usually fixed to or positioned next to the mass airflow sensor. The biggest part inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to regulate air flow.

On numerous styles of cars, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles with electronic throttle control, also referred to 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 sensor sends the pedal position to the ECU or likewise known as 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 portion on the left hand side that is curved in design. The copper coil situated near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates revolve within the throttle body each time pressure is applied on the accelerator. The throttle passage is then opened so as to permit much more air to flow into the intake manifold. Usually, an airflow sensor measures this change 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 likewise called TPS is connected to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the wide-open throttle or likewise called "WOT" position, the idle position or somewhere in between these two extremes.

Several throttle bodies can have adjustments and valves in order to control the minimum airflow during the idle period. Even in units which are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses in order to control the amount of air which could bypass the main throttle opening.

It is common that many vehicles have a single throttle body, even if, more than one can be utilized and connected together by linkages so as to improve throttle response. High performance cars like for example the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called ITBs or otherwise 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 regulating the amount of air flow. Vehicles which have throttle body injection, that is known as TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without considerably changing the engine design.