

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This mechanism works by putting pressure upon the operator accelerator pedal input. Normally, the throttle body is positioned between the intake manifold and the air filter box. It is often fixed to or located near the mass airflow sensor. The biggest piece in 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 nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In cars consisting of electronic throttle control, otherwise called "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 likewise known as 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 consists of a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil situated next to this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates revolve in the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened so as to permit a lot more air to flow into the intake manifold. Typically, 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 so as to produce the desired air-fuel ratio. Generally a throttle position sensor or 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 idle position, the wide-open position or also called "WOT" position or anywhere in between these two extremes.

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

It is common that a lot of cars have a single throttle body, even though, more than one can be utilized and attached together by linkages so as to improve throttle response. High performance cars like for instance the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They work by blending the air and fuel together and by regulating the amount of air flow. Vehicles that include throttle body injection, that is known as TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This enables an old engine the chance to be converted from carburetor to fuel injection without really changing the engine design.