

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines in order to regulate the amount of air flow to the engine. This mechanism functions by applying pressure upon the driver accelerator pedal input. Normally, the throttle body is positioned between the air filter box and the intake manifold. It is usually fixed to or situated near the mass airflow sensor. The biggest component inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to regulate air flow.

On numerous kinds of vehicles, 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, likewise known as "drive-by-wire" an electric motor regulates 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 otherwise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together with inputs from different engine sensors. The throttle body has 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 next to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate rotates in the throttle body each time the driver presses on the accelerator pedal. This opens the throttle passage and enables a lot 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 to be able to produce the desired air-fuel ratio. Frequently a throttle position sensor or 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 wide-open throttle or also called "WOT" position, the idle position or anywhere in between these two extremes.

In order to regulate the minimum air flow while idling, several throttle bodies could include adjustments and valves. Even in units that 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 so as to regulate the amount of air that could bypass the main throttle opening.

In many vehicles it is normal for them to contain one throttle body. In order to improve throttle response, more than one can be utilized and connected together by linkages. High performance vehicles such as the BMW M1, along 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 together. They work by combining the fuel and air together and by controlling the amount of air flow. Cars which include throttle body injection, which is called CFI by Ford and TBI by GM, locate the fuel injectors within the throttle body. This allows an old engine the possibility to be converted from carburetor to fuel injection without considerably changing the design of the engine.