

Forklift Throttle Body

Throttle Body for Forklifts - The throttle body is a component of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This mechanism works by applying pressure upon the driver accelerator pedal input. Generally, the throttle body is situated between the air filter box and the intake manifold. It is often connected to or positioned 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 so as to regulate air flow.

On various kinds of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with 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 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 together with inputs from various engine sensors. The throttle body has 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 placed near this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates turn inside the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened in order 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 to be able to produce the desired air-fuel ratio. Frequently a throttle position sensor or also called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or likewise called "WOT" position or anywhere in between these two extremes.

In order to control the lowest amount of air flow while idling, various throttle bodies could have adjustments and valves. Even in units which are not "drive-by-wire" there would normally 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 lots of cars have 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 like for instance the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are called ITBs or also known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are quite the same. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They could regulate the amount of air flow and combine the air and fuel together. Automobiles which include throttle body injection, that is called TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This permits an old engine the possibility to be transformed from carburetor to fuel injection without considerably changing the engine design.