

Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air that flows into the motor. This mechanism operates in response to driver accelerator pedal input in the main. Usually, the throttle body is located between the intake manifold and the air filter box. It is usually attached to or placed close to the mass airflow sensor. The biggest piece in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is in order to control air flow.

On nearly all cars, the accelerator pedal motion is transferred via the throttle cable, hence activating the throttle linkages works to move the throttle plate. In cars consisting of electronic throttle control, also 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 also 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 connects to the black part on the left hand side which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates revolve within the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened so as to permit much more air to flow into the intake manifold. Normally, 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 so as 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 in order 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.

Several throttle bodies could include adjustments and valves to be able to control the minimum airflow all through the idle period. Even in units that 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 be able to regulate the amount of air which could bypass the main throttle opening.

In a lot of vehicles it is normal for them to have a single throttle body. In order to improve throttle response, more than one could be used and attached together by linkages. High performance cars such as the BMW M1, along with high performance motorcycles such as 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 function by combining the air and fuel together and by controlling the amount of air flow. Vehicles which include throttle body injection, that is called CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This enables an older engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.