

Forklift Throttle Body

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air which flows into the motor. This particular mechanism operates in response to operator accelerator pedal input in the main. Usually, the throttle body is positioned between the intake manifold and the air filter box. It is normally attached to or positioned close to the mass airflow sensor. The largest 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 through the throttle cable, hence activating the throttle linkages works to move the throttle plate. In cars with electronic throttle control, otherwise called "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 connects to the black part on the left hand side which is curved in design. The copper coil situated near this is what returns the throttle body to its idle position once the pedal is released.

Throttle plates rotate inside the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened in order to permit much more air to flow into the intake manifold. Normally, 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 so as to produce the desired air-fuel ratio. Frequently a throttle position sensor or otherwise 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 "WOT" position, the idle position or somewhere in between these two extremes.

So as to control the lowest amount of air flow while idling, several throttle bodies can have valves and adjustments. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses in order to control the amount of air which could bypass the main throttle opening.

In many cars it is normal for them to contain one throttle body. In order to improve throttle response, more than one could be utilized and attached together by linkages. High performance cars such as the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They operate by combining the fuel and air together and by regulating the amount of air flow. Cars which include throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This allows an older engine the opportunity to be converted from carburetor to fuel injection without really changing the design of the engine.