

Forklift Throttle Body

Throttle Body for Forklift - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which regulates the amount of air that flows into the motor. This particular mechanism functions in response to operator accelerator pedal input in the main. Normally, 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 biggest component inside the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is so as to control air flow.

On many styles of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, also called "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This particular 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 upon 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 which is curved in design. The copper coil situated close to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate rotates within the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and allows much more air to be able to flow into the intake manifold. Usually, 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 to be able to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is fixed to the shaft of the throttle plate so as 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.

So as to control the minimum air flow while idling, some throttle bodies can have 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 uses to control the amount of air that could bypass the main throttle opening.

It is common that a lot of vehicles contain one throttle body, even though, more than one can be used and connected together by linkages so as to improve throttle response. High performance cars like for example the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as 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 throttle body and the fuel injectors together. They function by mixing the fuel and air together and by regulating the amount of air flow. Vehicles which have throttle body injection, that is known as CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This enables an old engine the possibility to be transformed from carburetor to fuel injection without significantly altering the design of the engine.