

Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This mechanism functions by applying pressure on the operator accelerator pedal input. Usually, the throttle body is located between the intake manifold and the air filter box. It is normally connected to or placed close to the mass airflow sensor. The largest part in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to control air flow.

On several kinds 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 cars with electronic throttle control, also called "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal connects to a sensor and not to the throttle body. This sensor sends the pedal position to the ECU or likewise known as 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 consists of 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 after the pedal is released.

The throttle plate rotates within the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits a lot more air to flow into the intake manifold. Usually, an airflow sensor measures this alteration 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. Generally a throttle position sensor or also called TPS is fixed 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 "WOT" position or anywhere in between these two extremes.

Several throttle bodies can have valves and adjustments in order to regulate the lowest amount of airflow throughout 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 also called IACV that the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

It is common that various automobiles have one throttle body, though, more than one can be utilized and attached together by linkages in order to improve throttle response. High performance automobiles like for example the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are somewhat the same. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They could control the amount of air flow and combine the air and fuel together. Cars that include throttle body injection, that is referred to as CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This enables an older engine the possibility to be converted from carburetor to fuel injection without considerably altering the engine design.