

Throttle Body for Forklift

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 particular mechanism works by putting pressure on the operator accelerator pedal input. Generally, the throttle body is situated between the intake manifold and the air filter box. It is usually connected to or positioned next to the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to control air flow.

On various 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 automobiles with electronic throttle control, also known as "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 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 along with inputs from different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil positioned close to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate revolves within the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and enables a lot more air to flow into the intake manifold. Typically, 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 produce the desired air-fuel ratio. Often a throttle position sensor or otherwise called TPS is connected 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 otherwise called "WOT" position or somewhere in between these two extremes.

To be able to control the least amount of air flow while idling, several throttle bodies may have valves and adjustments. Even in units that are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV that the ECU uses to regulate the amount of air which could bypass the main throttle opening.

It is common that various vehicles contain one throttle body, even if, more than one could be used and attached together by linkages so as to improve throttle response. High performance cars like the BMW M1, together with high performance motorcycles like for instance 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."

The carburetor and the throttle body in a non-injected engine are somewhat similar. The carburetor combines the functionality of both the fuel injectors and the throttle body together. They could control the amount of air flow and combine the air and fuel together. Cars which have throttle body injection, that is called TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This allows an old engine the chance to be transformed from carburetor to fuel injection without considerably changing the engine design.