

Forklift Throttle Body

Throttle Body for Forklifts - The throttle body is part 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. Usually, the throttle body is placed between the air filter box and the intake manifold. It is usually fixed to or positioned next to the mass airflow sensor. The biggest component within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to regulate air flow.

On various styles of cars, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with electronic throttle control, otherwise known as "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 on 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 part on the left hand side that is curved in design. The copper coil placed close to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates turn in the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened to be able to allow 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 generate the desired air-fuel ratio. Frequently a throttle position sensor or 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 likewise called "WOT" position or somewhere in between these two extremes.

So as to control the minimum air flow while idling, some throttle bodies may have adjustments and valves. Even in units which are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU utilizes in order to control the amount of air which can bypass the main throttle opening.

It is common that numerous cars have one throttle body, even if, more than one can be used and attached together by linkages in order to improve throttle response. High performance vehicles like for instance the BMW M1, together with high performance motorcycles such as 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 carburetor and the throttle body in a non-injected engine are quite similar. The carburetor combines the functionality of both the throttle body and the fuel injectors into one. They could regulate the amount of air flow and combine the air and fuel together. Vehicles that include throttle body injection, that is known as CFI by Ford and TBI by GM, locate the fuel injectors inside the throttle body. This permits an old engine the opportunity to be converted from carburetor to fuel injection without significantly altering the design of the engine.