

Throttle Body for Forklift

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to control the amount of air flow to the engine. This mechanism works 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 usually attached to or situated near the mass airflow sensor. The largest component inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to control air flow.

On the majority of automobiles, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In cars with electronic throttle control, otherwise known as "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 on accelerator pedal position along with inputs from various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side that is curved in design. The copper coil located next to this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate revolves in the throttle body each time the operator applies pressure on the accelerator pedal. This opens the throttle passage and enables much more air 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 in order to produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is fixed to the shaft of the throttle plate to be able to provide the ECU with information on whether the throttle is in the wide-open throttle or otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

Some throttle bodies may have valves and adjustments to be able to regulate the least amount of airflow throughout the idle period. Even in units which are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or also called IACV which the ECU utilizes to control the amount of air which can bypass the main throttle opening.

It is common that a lot of automobiles have a single throttle body, although, more than one can be used and connected together by linkages so as to improve throttle response. High performance vehicles such as the BMW M1, along 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."

The carburetor and the throttle body in a non-injected engine are quite the same. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They could modulate the amount of air flow and blend the fuel and air together. Automobiles that include throttle body injection, that is referred to as CFI by Ford and TBI by GM, locate the fuel injectors within the throttle body. This permits an old engine the chance to be converted from carburetor to fuel injection without significantly altering the engine design.