

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system which regulates the amount of air that flows into the engine. This particular mechanism works in response to operator accelerator pedal input in the main. Generally, the throttle body is situated between the air filter box and the intake manifold. It is often fixed to or situated near the mass airflow sensor. The biggest component in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is so as to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works so as to move the throttle plate. In cars with electronic throttle control, also referred to 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 sensor sends the pedal position to the ECU or otherwise 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 portion on the left hand side which is curved in design. The copper coil located near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate revolves within the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and enables a lot more air to be able to flow into the intake manifold. Typically, an airflow sensor measures this adjustment 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. Often a throttle position sensor or otherwise called TPS is attached 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 otherwise called "WOT" position or anywhere in between these two extremes.

So as to control the lowest amount of air flow while idling, some throttle bodies can include valves and adjustments. Even in units that are not "drive-by-wire" there will usually be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV which the ECU uses in order to control the amount of air that could bypass the main throttle opening.

It is common that numerous automobiles have a single throttle body, although, more than one could be used and connected together by linkages in order to improve throttle response. High performance cars like the BMW M1, along with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are quite similar. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They can modulate the amount of air flow and combine the fuel and air together. Automobiles that have throttle body injection, that is called CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This permits an old engine the opportunity to be converted from carburetor to fuel injection without considerably altering the engine design.