

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the engine. This particular mechanism functions in response to driver accelerator pedal input in the main. Generally, the throttle body is situated between the air filter box and the intake manifold. It is usually attached to or located close to the mass airflow sensor. The largest component within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is in order to regulate 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 consisting of electronic throttle control, likewise 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 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 which is curved in design. The copper coil positioned near this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate rotates within the throttle body each time the driver applies pressure on the accelerator pedal. This opens the throttle passage and enables more air 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 to be able to generate the desired air-fuel ratio. Often 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 wide-open throttle or also called "WOT" position, the idle position or somewhere in between these two extremes.

So as to control the least amount of air flow while idling, various throttle bodies may have adjustments and valves. 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 IACV which the ECU utilizes in order to regulate the amount of air that could bypass the main throttle opening.

It is common that lots of cars contain one throttle body, although, more than one could be used and attached together by linkages to be able to improve throttle response. High performance vehicles such as the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every 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 somewhat the same. The carburetor combines the functionality of both the fuel injectors and the throttle body into one. They are able to control the amount of air flow and blend the fuel and air together. Automobiles that have throttle body injection, that is known as TBI by GM and CFI by Ford, locate the fuel injectors in the throttle body. This permits an old engine the possibility to be transformed from carburetor to fuel injection without significantly altering the engine design.