

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 which flows into the motor. This particular mechanism operates in response to driver accelerator pedal input in the main. Normally, the throttle body is placed between the air filter box and the intake manifold. It is usually attached to or placed close to the mass airflow sensor. The biggest part in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main function is to control air flow.

On most automobiles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works in order to move the throttle plate. In cars with electronic throttle control, also 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 particular sensor sends the pedal position to the ECU or Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from other 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 near this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate revolves in the throttle body every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and enables much more air to be able to flow into the intake manifold. Normally, 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. Generally a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the wide-open throttle or "WOT" position, the idle position or anywhere in between these two extremes.

To be able to regulate the minimum air flow while idling, some throttle bodies can include adjustments and valves. Even in units that are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU uses to control the amount of air which can bypass the main throttle opening.

It is common that lots of vehicles contain one throttle body, though, more than one could be used and attached together by linkages to be able to improve throttle response. High performance automobiles such as the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called ITBs or likewise 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 fuel injectors and the throttle body into one. They are able to control the amount of air flow and mix the fuel and air together. Cars which include throttle body injection, that is referred to as CFI by Ford and TBI by GM, situate the fuel injectors within the throttle body. This enables an older engine the opportunity to be transformed from carburetor to fuel injection without significantly changing the design of the engine.