

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that controls the amount of air that flows into the engine. This particular mechanism works 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 often fixed to or placed near the mass airflow sensor. The biggest piece within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is so as to regulate air flow.

On several kinds of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, otherwise referred to 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 also known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together 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 situated near this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate rotates within the throttle body each and every time the driver presses on the accelerator pedal. This opens the throttle passage and permits more air 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 so as to generate the desired air-fuel ratio. Frequently a throttle position sensor or TPS is connected 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 also called "WOT" position, the idle position or somewhere in between these two extremes.

Some throttle bodies may have adjustments and valves so as to regulate the least amount of airflow all through the idle period. Even in units which are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or otherwise called IACV which the ECU uses to be able to control the amount of air that can bypass the main throttle opening.

It is common that numerous automobiles have one throttle body, even though, more than one can be used and attached together by linkages to be able to improve throttle response. High performance cars such as 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 otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They work by mixing the air and fuel together and by regulating the amount of air flow. Automobiles which include throttle body injection, which is referred to as TBI by GM and CFI by Ford, situate the fuel injectors within the throttle body. This permits an old engine the chance to be transformed from carburetor to fuel injection without significantly changing the engine design.