

Throttle Body for Forklift

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 mechanism functions in response to driver accelerator pedal input in the main. Usually, the throttle body is situated between the intake manifold and the air filter box. It is usually connected to or positioned near the mass airflow sensor. The biggest part within the throttle body is a butterfly valve called the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On numerous kinds of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In vehicles consisting of electronic throttle control, likewise 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 Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together 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 once the pedal is released.

The throttle plate revolves inside the throttle body each and every time the operator applies pressure on the accelerator pedal. This opens the throttle passage and allows a lot more air to flow into the intake manifold. Normally, 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 likewise called TPS is attached to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or also called "WOT" position or somewhere in between these two extremes.

In order to regulate the minimum air flow while idling, some throttle bodies may have valves and adjustments. Even in units that are not "drive-by-wire" there will normally be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU uses to regulate the amount of air that can bypass the main throttle opening.

It is common that several automobiles have one throttle body, although, more than one could be utilized and connected together by linkages to be able to improve throttle response. High performance cars like the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the fuel injectors and the throttle body into one. They function by mixing the air and fuel together and by modulating the amount of air flow. Vehicles which have throttle body injection, which is referred to as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This enables an old engine the chance to be transformed from carburetor to fuel injection without significantly changing the design of the engine.