

Forklift Throttle Body

Forklift Throttle Body - Where fuel injected engines are concerned, the throttle body is the component of the air intake system which controls the amount of air which flows into the engine. This mechanism operates 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 normally connected to or positioned next to the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is to be able to regulate air flow.

On various styles of cars, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages that in turn move the throttle plate. In automobiles with electronic throttle control, also 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 likewise known as Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position along with inputs from various engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black portion on the left hand side which is curved in design. The copper coil located next to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates revolve inside the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened in order to permit a lot more air to flow into the intake manifold. Typically, 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or also called TPS is fixed to the shaft of the throttle plate in order 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 control the least amount of air flow while idling, several 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 uses to regulate the amount of air that could bypass the main throttle opening.

It is common that lots of cars contain a single throttle body, even though, more than one could be utilized and connected together by linkages in order to improve throttle response. High performance cars like 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 otherwise known as "individual throttle bodies."

The throttle body and the carburetor in a non-injected engine are rather similar. The carburetor combines the functionality of both the throttle body and the fuel injectors together. They can regulate the amount of air flow and blend the fuel and air together. Cars which include throttle body injection, which is referred to as TBI by GM and CFI by Ford, situate the fuel injectors in the throttle body. This allows an old engine the possibility to be converted from carburetor to fuel injection without really altering the design of the engine.