

Hyster 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 functions in response to driver accelerator pedal input in the main. Generally, the throttle body is located between the air filter box and the intake manifold. It is often attached to or located near the mass airflow sensor. The largest component inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is so as to control air flow.

On nearly all automobiles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works in order to move the throttle plate. In cars consisting of electronic throttle control, likewise 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 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 along with inputs from different 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 positioned next to this is what returns the throttle body to its idle position when the pedal is released.

The throttle plate rotates inside the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and permits a lot more air to be able 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 produce the desired air-fuel ratio. Frequently a throttle position sensor or also called TPS is connected 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 otherwise called "WOT" position or somewhere in between these two extremes.

Various throttle bodies may have adjustments and valves in order to control the least amount of airflow through the idle period. Even in units which 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 be able to regulate the amount of air that can bypass the main throttle opening.

In several automobiles it is common for them to contain a single throttle body. In order to improve throttle response, more than one could be utilized and connected together by linkages. 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 carburator and the throttle body in a non-injected engine are quite the same. The carburator combines the functionality of both the throttle body and the fuel injectors together. They could regulate the amount of air flow and combine the fuel and air together. Cars that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, situate the fuel injectors in the throttle body. This permits an older engine the possibility to be transformed from carburetor to fuel injection without considerably changing the design of the engine.