Throttle Body for Forklifts

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the component of the air intake system that regulates the amount of air that flows into the motor. This particular mechanism functions in response to driver accelerator pedal input in the main. Normally, the throttle body is situated between the intake manifold and the air filter box. It is usually attached to or located close to 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 control air flow.

On various 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 automobiles consisting of electronic throttle control, otherwise referred to 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 sensor sends the pedal position to the ECU or otherwise 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 has 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 placed close to this is what returns the throttle body to its idle position as soon as the pedal is released.

Throttle plates turn in the throttle body each and every time pressure is applied on the accelerator. The throttle passage is then opened so as to permit more air to flow into the intake manifold. Usually, 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 produce the desired air-fuel ratio. Frequently a throttle position sensor or likewise called TPS is connected 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 otherwise called "WOT" position, the idle position or anywhere in between these two extremes.

Various throttle bodies could include adjustments and valves in order to regulate the lowest amount of airflow during the idle period. Even in units which are not "drive-by-wire" there will often be a small electric motor driven valve, the Idle Air Control Valve or IACV which the ECU uses to be able to control the amount of air which can bypass the main throttle opening.

It is common that various vehicles contain one throttle body, although, more than one could be used and connected together by linkages in order to improve throttle response. High performance automobiles like the BMW M1, along with high performance motorcycles like for instance the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are called 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 operate by combining the air and fuel together and by modulating the amount of air flow. Cars that have throttle body injection, which is called TBI by GM and CFI by Ford, locate the fuel injectors inside the throttle body. This permits an old engine the chance to be converted from carburetor to fuel injection without significantly altering the design of the engine.