Throttle Body for Forklift

Throttle Body for Forklifts - Where fuel injected engines are concerned, the throttle body is the part of the air intake system that controls the amount of air that flows into the motor. This mechanism works in response to operator accelerator pedal input in the main. Normally, the throttle body is positioned between the air filter box and the intake manifold. It is normally fixed to or placed close to the mass airflow sensor. The biggest part within the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is to control air flow.

On many kinds of automobiles, the accelerator pedal motion is communicated via the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In vehicles consisting of 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 on accelerator pedal position together with inputs from various engine sensors. The throttle body has 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 placed near this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate turns in the throttle body each time the operator presses on the accelerator pedal. This opens the throttle passage and allows much more air 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 in order to produce the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is attached to the shaft of the throttle plate to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or likewise called "WOT" position or anywhere in between these two extremes.

Various throttle bodies could include adjustments and valves so as to control the least amount of airflow throughout 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 likewise called IACV that the ECU utilizes to regulate the amount of air which can bypass the main throttle opening.

It is common that many automobiles contain a single throttle body, although, more than one can be utilized and connected together by linkages in order to improve throttle response. High performance cars like the BMW M1, along 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 "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are rather similar. The carburator combines the functionality of both the fuel injectors and the throttle body together. They are able to modulate the amount of air flow and combine the fuel and air together. Vehicles that include throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors in the throttle body. This allows an old engine the possibility to be converted from carburetor to fuel injection without considerably changing the design of the engine.