Throttle Body for Forklift

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines so as to control the amount of air flow to the engine. This mechanism works by applying pressure on the driver accelerator pedal input. Normally, the throttle body is placed between the air filter box and the intake manifold. It is normally connected to or placed near the mass airflow sensor. The largest part in the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is in order to regulate air flow.

On many styles of automobiles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In automobiles consisting of electronic throttle control, likewise referred to 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 Engine Control Unit. The ECU is responsible for determining the throttle opening based on accelerator pedal position together 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 near this is what returns the throttle body to its idle position after the pedal is released.

The throttle plate revolves within the throttle body each time the operator applies pressure on the accelerator pedal. This opens the throttle passage and enables more air to flow into the intake manifold. Normally, 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 generate the desired air-fuel ratio. Generally a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate 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.

Some throttle bodies may include valves and adjustments in order to control the minimum airflow throughout the idle period. 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 also called IACV which the ECU utilizes to regulate the amount of air which could bypass the main throttle opening.

It is common that lots of automobiles have a single throttle body, though, more than one can be used and connected together by linkages in order to improve throttle response. High performance vehicles like the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are referred to as ITBs or also known as "individual throttle bodies."

The throttle body and the carburator in a non-injected engine are somewhat similar. The carburator combines the functionality of both the throttle body and the fuel injectors together. They could modulate the amount of air flow and combine the fuel and air together. Automobiles that include throttle body injection, which is called TBI by GM and CFI by Ford, put the fuel injectors inside the throttle body. This permits an old engine the opportunity to be transformed from carburetor to fuel injection without considerably altering the design of the engine.