Throttle Body for Forklift

Throttle Body for Forklift - The throttle body is a component of the intake control system in fuel injected engines to regulate the amount of air flow to the engine. This particular mechanism works by applying pressure upon the driver accelerator pedal input. Usually, the throttle body is situated between the intake manifold and the air filter box. It is often connected to or situated close to the mass airflow sensor. The largest part inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is to regulate air flow.

On several styles 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 vehicles consisting of electronic throttle control, otherwise 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 particular 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 other engine sensors. The throttle body has a throttle position sensor. The throttle cable connects to the black part on the left hand side which is curved in design. The copper coil situated close to this is what returns the throttle body to its idle position once the pedal is released.

The throttle plate rotates within the throttle body each time the operator applies pressure on the accelerator pedal. This opens the throttle passage and permits more air to be able to flow into the intake manifold. Normally, an airflow sensor measures this alteration 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 also called TPS is fixed 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 somewhere in between these two extremes.

Some throttle bodies may have adjustments and valves in order to control the least amount of airflow all through the idle period. Even in units which are not "drive-by-wire" there would often be a small electric motor driven valve, the Idle Air Control Valve or also called IACV that the ECU uses to regulate the amount of air that could bypass the main throttle opening.

In several automobiles it is common for them to have a single throttle body. So as to improve throttle response, more than one can be utilized and attached together by linkages. High performance automobiles like the BMW M1, along 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 carburator in a non-injected engine are somewhat similar. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They can modulate the amount of air flow and blend the fuel and air together. Cars that include throttle body injection, that is called TBI by GM and CFI by Ford, situate the fuel injectors in the throttle body. This enables an older engine the chance to be converted from carburetor to fuel injection without significantly altering the design of the engine.