Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines so as to regulate 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 located between the intake manifold and the air filter box. It is usually fixed to or situated close to the mass airflow sensor. The largest piece in the throttle body is a butterfly valve called the throttle plate. The throttle plate's main task is to regulate air flow.

On most cars, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to move the throttle plate. In vehicles with electronic throttle control, likewise known as "drive-by-wire" an electric motor regulates the throttle linkages. The accelerator pedal is attached 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 other engine sensors. The throttle body has a throttle position sensor. The throttle cable is attached to the black part on the left hand side that 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 rotates within the throttle body every time the operator presses on the accelerator pedal. This opens the throttle passage and enables a lot more air to flow into the intake manifold. Typically, 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 so as to generate the desired air-fuel ratio. Often a throttle position sensor or 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 "WOT" position, the idle position or anywhere in between these two extremes.

Various throttle bodies may include valves and adjustments in order to regulate the minimum airflow all through 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 otherwise called IACV that the ECU uses so as to regulate the amount of air that can bypass the main throttle opening.

In numerous cars it is normal for them to have one throttle body. To be able to improve throttle response, more than one could be used and attached together by linkages. High performance vehicles such as the BMW M1, together with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for each and every 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 rather the same. The carburator combines the functionality of both the fuel injectors and the throttle body into one. They can regulate the amount of air flow and mix the fuel and air together. Automobiles that include throttle body injection, which is known as CFI by Ford and TBI by GM, situate the fuel injectors inside the throttle body. This permits an older engine the possibility to be transformed from carburetor to fuel injection without considerably altering the design of the engine.