Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to be able to regulate the amount of air flow to the engine. This particular mechanism operates by applying pressure upon the driver accelerator pedal input. Generally, the throttle body is placed between the air filter box and the intake manifold. It is often attached to or positioned near the mass airflow sensor. The biggest piece inside the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main task is in order to control air flow.

On the majority of vehicles, the accelerator pedal motion is transferred via the throttle cable, thus activating the throttle linkages works to be able to move the throttle plate. In cars consisting of electronic throttle control, otherwise 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 otherwise 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 is attached to the black portion 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 when the pedal is released.

Throttle plates rotate in the throttle body each time pressure is placed on the accelerator. The throttle passage is then opened to permit 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 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 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.

Several throttle bodies may include valves and adjustments to be able to control the least amount of airflow throughout the idle period. Even in units that are not "drive-by-wire" there would usually be a small electric motor driven valve, the Idle Air Control Valve or likewise called IACV that the ECU uses to control the amount of air that can bypass the main throttle opening.

It is common that many automobiles contain one throttle body, although, more than one can be used and attached together by linkages in order to improve throttle response. High performance automobiles such as the BMW M1, together 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 also known as "individual throttle bodies."

A throttle body is like the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors together. They function by blending the fuel and air together and by modulating the amount of air flow. Vehicles that include throttle body injection, that is referred to as TBI by GM and CFI by Ford, situate the fuel injectors inside the throttle body. This enables an old engine the chance to be transformed from carburetor to fuel injection without really changing the design of the engine.