Forklift Throttle Body

Forklift Throttle Body - The throttle body is part of the intake control system in fuel injected engines to control the amount of air flow to the engine. This mechanism operates by putting pressure upon the operator accelerator pedal input. Generally, the throttle body is situated between the air filter box and the intake manifold. It is normally fixed to or located near the mass airflow sensor. The biggest piece in the throttle body is a butterfly valve known as the throttle plate. The throttle plate's main task is in order to control air flow.

On nearly all cars, the accelerator pedal motion is transferred through the throttle cable, thus activating the throttle linkages works in order 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 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 along 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 located close to this is what returns the throttle body to its idle position when the pedal is released.

Throttle plates revolve within the throttle body each and every time pressure is placed on the accelerator. The throttle passage is then opened so as to enable a lot more air to flow into the intake manifold. Usually, 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 also called TPS is fixed to the shaft of the throttle plate so as to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or otherwise called "WOT" position or anywhere in between these two extremes.

Some throttle bodies could have adjustments and valves to be able to control the least amount of airflow all through 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 IACV that the ECU utilizes to control the amount of air that can bypass the main throttle opening.

It is common that many automobiles have one throttle body, even if, more than one could be used and attached together by linkages so as to improve throttle response. High performance vehicles like for example the BMW M1, along with high performance motorcycles like the Suzuki Hayabusa have a separate throttle body for every cylinder. These models are referred to as ITBs or otherwise 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 into one. They function by mixing the air and fuel together and by modulating the amount of air flow. Automobiles which include throttle body injection, that is called TBI by GM and CFI by Ford, put the fuel injectors within the throttle body. This allows an old engine the possibility to be transformed from carburetor to fuel injection without significantly altering the design of the engine.