Throttle Body for Forklift

Forklift Throttle Body - 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 functions by putting pressure upon the operator accelerator pedal input. Generally, the throttle body is placed 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 within the throttle body is a butterfly valve referred to as the throttle plate. The throttle plate's main function is so as to regulate air flow.

On the majority of automobiles, the accelerator pedal motion is transferred through the throttle cable, therefore activating the throttle linkages works to be able to move the throttle plate. In automobiles with electronic throttle control, likewise 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 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 various engine sensors. The throttle body consists of a throttle position sensor. The throttle cable connects to the black portion on the left hand side which is curved in design. The copper coil placed next to this is what returns the throttle body to its idle position after the pedal is released.

Throttle plates revolve inside the throttle body every time pressure is placed on the accelerator. The throttle passage is then opened to be able to permit 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 in order to generate the desired air-fuel ratio. Often a throttle position sensor or likewise called TPS is attached to the shaft of the throttle plate in order to provide the ECU with information on whether the throttle is in the idle position, the wide-open position or "WOT" position or somewhere in between these two extremes.

Several throttle bodies may have valves and adjustments in order to regulate the lowest amount of airflow through the idle period. Even in units which are not "drive-by-wire" there would normally be a small electric motor driven valve, the Idle Air Control Valve or IACV that the ECU utilizes so as to regulate the amount of air which could bypass the main throttle opening.

It is common that several vehicles contain one throttle body, though, more than one could be utilized and connected together by linkages so as to improve throttle response. High performance cars like the BMW M1, together with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called 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 work by blending the air and fuel together and by regulating the amount of air flow. Vehicles which have throttle body injection, which is known as CFI by Ford and TBI by GM, situate the fuel injectors in the throttle body. This allows an old engine the chance to be converted from carburetor to fuel injection without significantly changing the design of the engine.