Throttle Body for Forklifts

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 putting pressure on the operator accelerator pedal input. Generally, the throttle body is placed between the intake manifold and the air filter box. It is usually connected to or placed next to the mass airflow sensor. The biggest piece in 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 automobiles, the accelerator pedal motion is transferred via the throttle cable, therefore activating the throttle linkages works in order to move the throttle plate. In automobiles consisting of electronic throttle control, otherwise called "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 together with inputs from other engine sensors. The throttle body consists of 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 situated near this is what returns the throttle body to its idle position as soon as the pedal is released.

The throttle plate revolves within the throttle body every time the driver presses on the accelerator pedal. This opens the throttle passage and permits 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 in order to produce the desired air-fuel ratio. Frequently a throttle position sensor or likewise called 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 somewhere in between these two extremes.

To be able to control the least amount of air flow while idling, various throttle bodies could have adjustments and valves. 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 also called IACV that the ECU uses to be able to control the amount of air that can bypass the main throttle opening.

It is common that lots of vehicles contain one throttle body, even though, more than one could be used and attached together by linkages to be able to improve throttle response. High performance automobiles like for example the BMW M1, along with high performance motorcycles such as the Suzuki Hayabusa have a separate throttle body for each and every cylinder. These models are referred to as ITBs or otherwise known as "individual throttle bodies."

A throttle body is similar to the carburetor in a non-injected engine. Carburetors combine the functionality of the throttle body and the fuel injectors into one. They work by combining the air and fuel together and by controlling the amount of air flow. Vehicles which have throttle body injection, which is referred to as CFI by Ford and TBI by GM, locate the fuel injectors within the throttle body. This allows an old engine the opportunity to be transformed from carburetor to fuel injection without significantly changing the design of the engine.