

Forklift Throttle Body

Forklift Throttle Body - The throttle body is a component of the intake control system in fuel injected engines to be able to control the amount of air flow to the engine. This mechanism works by putting pressure upon the driver accelerator pedal input. Usually, the throttle body is positioned between the air filter box and the intake manifold. It is usually connected to or located near 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 regulate air flow.

On several kinds of vehicles, the accelerator pedal motion is communicated through the throttle cable. This activates the throttle linkages which in turn move the throttle plate. In cars with electronic throttle control, also referred to as "drive-by-wire" an electric motor controls the throttle linkages. The accelerator pedal is attached to a sensor and not to the throttle body. This particular sensor sends the pedal position to the ECU or Engine Control Unit. The ECU is responsible for determining the throttle opening based upon accelerator pedal position together with inputs from different engine sensors. The throttle body consists of a throttle position sensor. The throttle cable is attached to the black portion on the left hand side that 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 each time pressure is placed on the accelerator. The throttle passage is then opened to be able to enable 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 so as to generate the desired air-fuel ratio. Generally a throttle position sensor or otherwise called TPS is attached 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 also called "WOT" position or somewhere in between these two extremes.

Various throttle bodies could have adjustments and valves in order to regulate the minimum airflow through the idle period. Even in units that 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 uses to regulate the amount of air which can bypass the main throttle opening.

It is common that lots of vehicles have one throttle body, though, more than one could be utilized and attached together by linkages so as to improve throttle response. High performance automobiles like the BMW M1, together with high performance motorcycles like for example the Suzuki Hayabusa have a separate throttle body for each cylinder. These models are called 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 operate by combining the fuel and air together and by modulating the amount of air flow. Vehicles which include throttle body injection, which is called CFI by Ford and TBI by GM, put the fuel injectors inside the throttle body. This allows an old engine the possibility to be transformed from carburetor to fuel injection without considerably changing the engine design.